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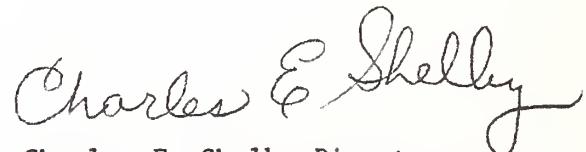
Regional Swine Breeding Laboratory

Ames, Iowa

5-13-64

Foreword

The present bibliography has been compiled from reprints available in this office, citations of other authors, Animal Breeding Abstracts, and library search. The present edition is the third draft of what started to be a bibliography of publications from the Regional Swine Breeding Laboratory. It has not been edited carefully. In many instances, research conducted in related areas such as meats, production, reproductive physiology, cytology, anatomy, etc. have been included. Some of these will be excluded in later editions. No attempt has been made to include publications in other languages unless an English summary is given. The present edition of the bibliography will be distributed to project leaders and to research workers in swine genetics. Insertion in a loose-leaf binder is suggested. Pages will be revised as necessary. Comments and suggestions will be appreciated. Omissions should be pointed out.



Charles E. Shelby, Director
Regional Swine Breeding Laboratory



-1-

1898

Bitting, A. W. 1898. Fecundity in swine. Ind. Agr. Exp. Sta. 10th Ann.
Rept. pp. 42-46.

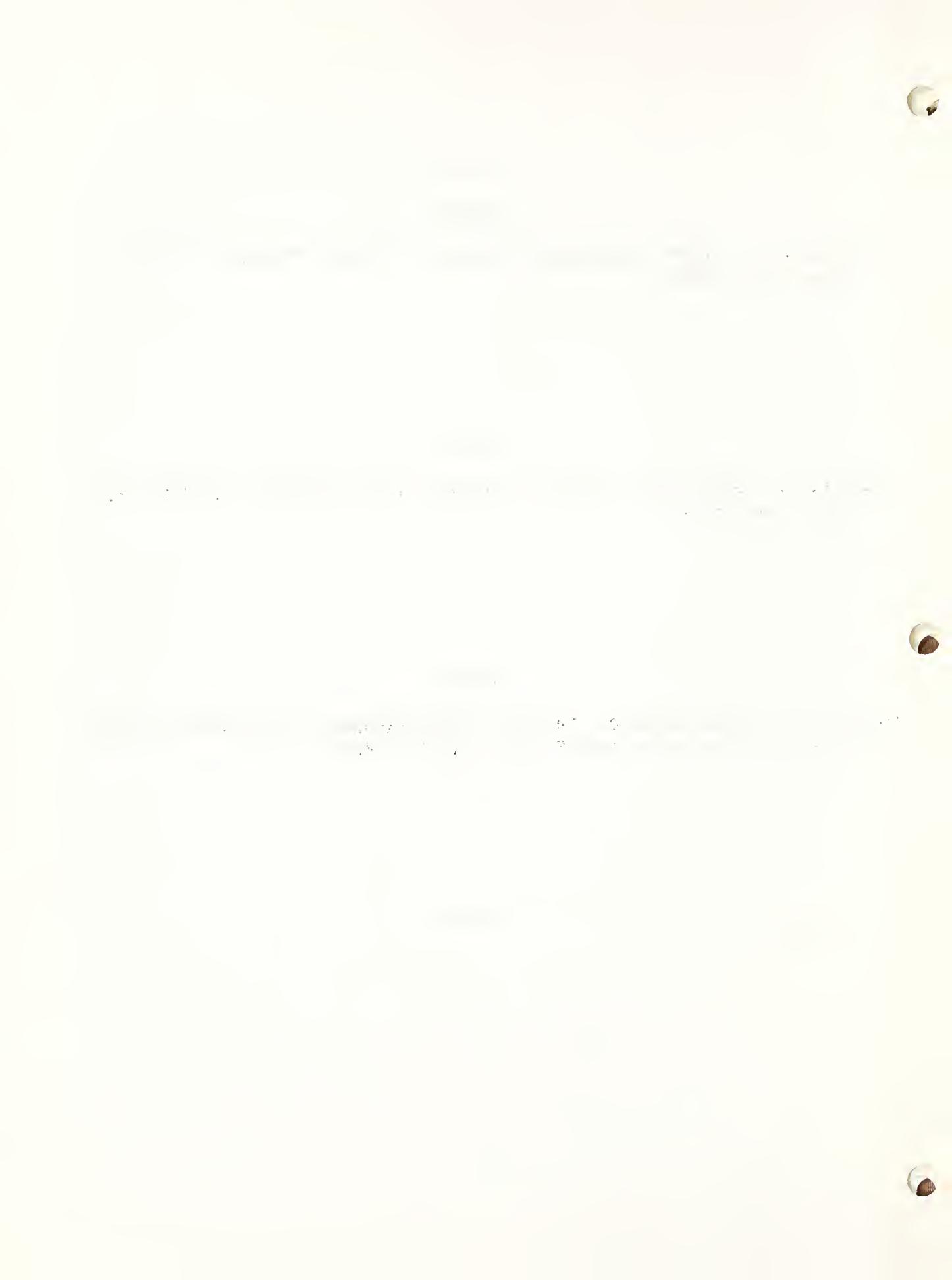
1899

Plumb, C. S. 1899. The fecundity of swine. Ind. Agr. Exp. Sta. 11th Ann.
Rept. pp. 42-46.

1900

Parker, G. H. and Bullard, C. 1900. The arrangement of the mammary glands
in litters of unborn pigs. Sci. (N.S.) 11:168.

1901



-2-

1902

1903

1904

1905

Gentry, N. W. 1905. Inbreeding Berkshires. Proc. Amer. Breed. Assn.
1:169-171.

1906

Rommel, George M. 1906. The fecundity of Poland China and Duroc Jersey sows. USDA Bur. Anim. Ind. Cir. 95.

Rommel, G. M. and Phillips, E. F. 1906. Inheritance in the female line of size of litter in Poland China sows. Proc. Amer. Phil. Soc. 45:245-254.

Spillman, W. J. 1906. Inheritance of coat color in swine. Sci. N.S. 24:441-443.

1907

Chambers, J. A. 1907. Crossbreeding hogs for market purposes. B.S. Thesis. Iowa State Coll. Libr. Ames.

Dryden, John. 1907. The evolution of the bacon type. Rept. Amer. Breed. Assn. 3:209-211.

Gaumnitz, D. A. 1907. Report of the committee on swine breeding. Rept. Amer. Breed. Assn. 3:285-289.

Rommel, G. M. 1907. Inheritance of litter size in Poland China sows. Rept. Amer. Breed. Assn. 3:201-208.

Rommel, George M. 1907. Relative proportions of the sexes in litters of pigs. USDA Bur. Anim. Ind. Cir. 112.

Simpson, Q.I. 1907. Rejuvenation by hybridization. Rept. Amer. Breed. Assn. 3:76-81.

Spillman, W. J. 1907. Inheritance of the belt in Hampshire swine. Sci. N.S. 25:541-543.

Spillman, W. J. 1907. Report of committee on animal hybridizing. Rept. Amer. Breed. Assn. 3:184-191.

1908

Ball, E. N. 1908. The Tamworth Cross. Breed. Gaz. p. 798.

Spillman, W. J. 1908. Color factors in mammals. Rept. Amer. Breed. Assn. 4:357-359.

Spillman, W. J. 1908. Report of the committee on animal hybridizing. Rept. Amer. Breed. Assn. 4:317-323.

Surface, Frank M. 1908. Fecundity of swine. Biometrika. 6:434.

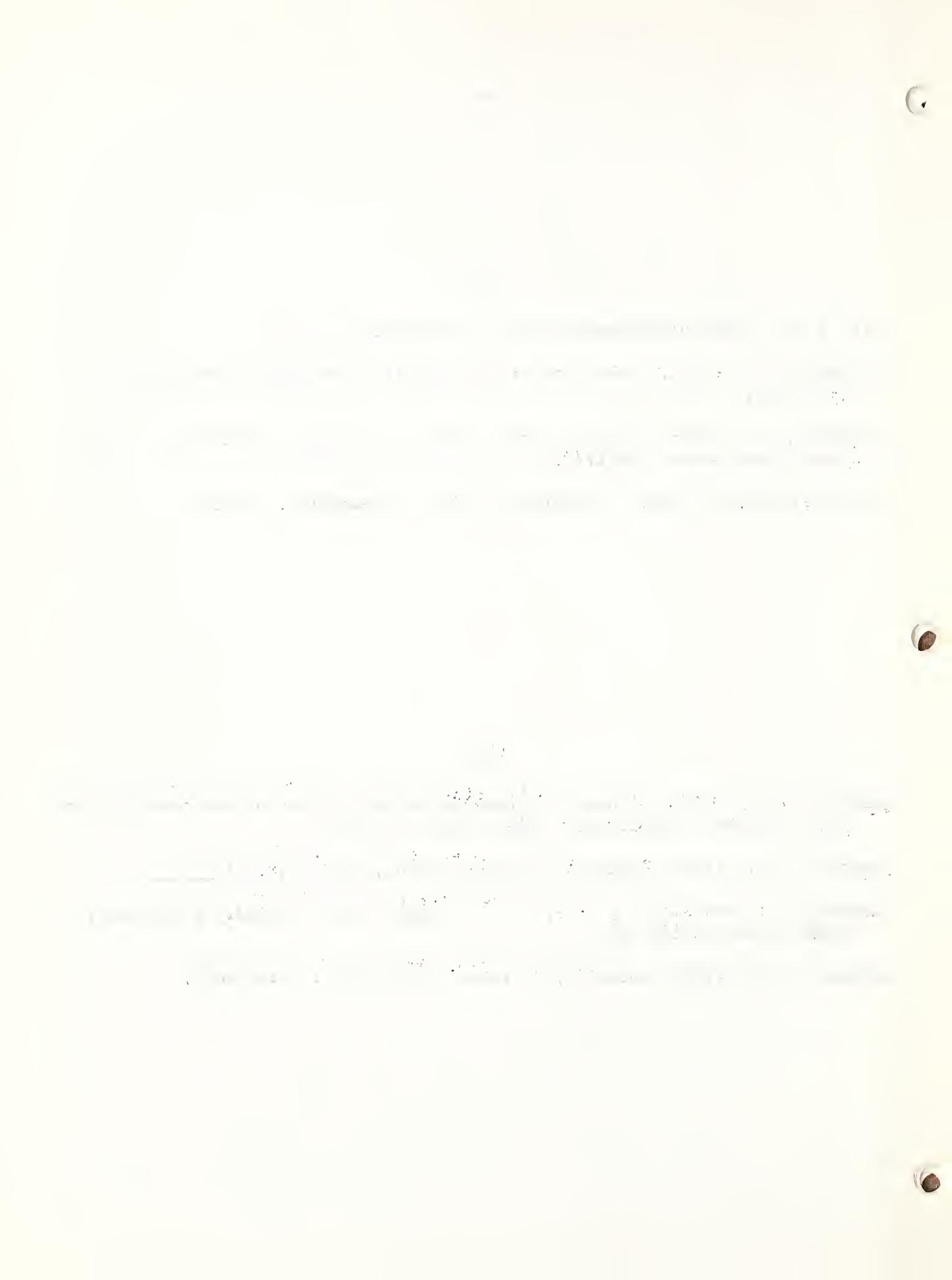
1909

Gaumnitz, D. A. 1909. A plan for breeding swine. Report of the committee on swine breeding. Rept. Amer. Breed. Assn. 5:8-12.

Simpson, Q. I. 1909. Genetics in swine hybrids. Sci. N.S. 27:_____.

Simpson, Q. I. and Simpson, J. P. 1909. Genetic laws applied. Rept. Amer. Breed. Assn. 5:250-255.

Surface, F. M. 1909. Fecundity in swine. Biometrika. 6:433-436.



1910

Spillman, W. J. 1910. History and peculiarities of the mule-foot hog. Rept. Amer. Breed. Assn. 6:116-120. Amer. Breed. Mag. 1:178-182.

Spillman, W. J. 1910. Report of committee on animal hybrids. Rept. Amer. Breed. Assn. 6:131-134. Amer. Breed. Mag. 1:193-196.

Willson, C. A. 1910. Objects and results of swine registration. Rept. Amer. Breed. Assn. 6:341-349.

1911

Lowrey, L. G. 1911. Prenatal growth of the pig. Amer. J. Anat. 12:107-138.

Pearson, K. 1911. Remark on Prof. Lloyd's note on the inheritance of fertility. Biometrika. 8:247.

Simpson, Q. I. 1911. Fecundity in swine. Rept. Amer. Breed. Assn. 7:261-266.

Simpson, Q. I. and J. P. 1911. Analytical hybridizing. Rept. Amer. Breed. Assn. 7:266-275.

1912

Evvard, J. M. 1912. Nutrition as a factor in fetal development. Rept. Amer. Breed. Assn. 8:549-560.

George, C. R. 1912. The inheritance of fecundity in Poland China swine. M.S. Thesis. Univ. of Ohio Libr.

Hammond, J. 1912. A case of hermaphroditism in the pig. J. Anat. (Lond.) 46:307-312.

1912

Jones, J. McKinley. 1912. Age as a factor in animal breeding. M.A. Thesis.
Univ. of Mo. Libr. Columbia.

Mackenzie, K.J.J. and Marshall, F.H.A. 1912. On ovariotomy in sows with
observations on the mammary glands and the internal genital organs. J.
Agr. Sci. 4(4):410-420.

Wentworth, E. N. 1912. Inheritance of mammae in swine. Rept. Amer. Breed.
Assn. 8:545-549.

1913

Frohlich, G. 1913. Heredity studies with swine. J. Landv. 61(3):217-235.

Mackenzie, K.J.J. and Marshall, F.H.A. 1913. An ovariotomy in sows; with
observations on the mammary glands and internal genital organs. (Part II).
J. Agr. Sci. 5(4):418-423.

Parker, G. H. and Bullard, C. 1913. On the size of litters and the number of
nipples in swine. Proc. Amer. Acad. Arts and Sci. 49:399-426.

Pearl, R. 1913. Note regarding the relation of age to fecundity. Sci. (N.S.)
37:226-228.

Pearl, R. 1913. On the correlation between the number of mammae of the demand
size of litter in mammals. II. Interracial correlations in swine. Proc.
Soc. Expt. Biol. Med. 11:31-32.

Smith, W. W. 1913. Color inheritance in swine. Amer. Breed. Mag. 4(2):113-123.

Wentworth, E. N. 1913. Inheritance of mammae in Duroc-Jersey swine. Amer.
Nat. 47:257-278.

Wodsedalek, J. E. 1913. Spermatogenesis of the pig with special reference to
the accessory chromosomes. Biol. Bul. 25:8-44.

1914

Frohlich, Gustav. 1914. Color inheritance in pigs. J. Hered. 5:92.

Hammond, J. 1914. On some factors controlling fertility in domestic animals. J. Agr. Sci. 6:263-277.

Mackenzie, K.J.J., Marshall, F.H.A., and Hammond, J. 1914. On ovariotomy in sows; with observations on the mammary glands and the internal genital organs. (Part III). J. Agr. Sci. 6(2):182-186.

McLean, J. A. 1914. The sapphire hog. J. Hered. 5:301-304.

Simpson, Q. I. 1914. Coat pattern in mammals. J. Hered. 5:328-339.

1915

Griswold, D. J. 1915. A study of the effects of the periods of gestation and lactation upon the growth and composition of swine. M.A. Thesis. Univ. of Mo. Libr. Columbia.

Hopkins, R. M. 1915. Color and pattern inheritance in swine with special reference to the Hampshire. B.S. Thesis. Iowa State Coll. Libr. Ames.

Mackenzie, K.J.J. and Marshall, F.H.A. 1915. On ovariotomy in sows; with observations on the mammary glands and the internal genital organs. (Part IV). J. Agr. Sci. 7(2):243-245.

Mackenzie, K.J.J. and Marshall, F.H.A. 1915. Physiology and beacon-curing. J. Roy. Soc. Eng. 76:1-13.

1916

Anon. 1916. Inheritance of fertility in swine. J. Hered. 7:224.

Harris, J. Arthur. 1916. Statistical studies of the number of nipples in the mammals. Amer. Nat. 6:699-704.

Jones, C.A. 1916. The effect of early pregnancy and lactation on the growth of young breeding animals. M.A. Thesis. Univ. of Mo. Libr. Columbia.

Wentworth, Edward N. and Aubel, C. E. 1916. Inheritance of fertility in swine. J. Agr. Res. 5(25):1145-1160.

1917

Hance, R. T. 1917. The diploid chromosome complex of the pig. (*Sus scrofa*) and their variations. J. Morph. 30:155-222.

Severson, B. O. 1917. Color inheritance in swine. J. Hered. 8:379-381.

Wentworth, E. N. 1917. The influence of the male on litter size. Iowa Acad. Sci. 24:307-308.

Wright, Sewall. 1917. Color inheritance in mammals. J. Hered. 8:426-430.



1918

Chung, Pau Sien. 1918. Milk supply for pigs with special reference to the quality and quantity produced by sows. M.S. Thesis. Univ. of Ill. Libr. Urbana.

Evans, R. J. 1918. History of the Duroc, a short history of the Duroc-Jersey breed of swine. 83 p. illus., Chicago.

Ewing, P. V., Wright, L. H., and Burk, L. B. 1918. Cooperative soft pork studies. IV. Method of extracting fat samples from live hogs. Texas Agr. Exp. Sta. Bul. 226.

Jones, D. F. 1918. The effects of inbreeding and crossbreeding upon development. Conn. Agr. Exp. Sta. Bul. 207.

Wright, Sewall. 1918. Color inheritance in mammals. VIII. Swine. J. Hered. 9(1):33-38.

Zimmerman, B. C. 1918. Age as a factor in animal breeding. M.A. Thesis. Univ. of Mo. Libr. Columbia.

1919

Hays, F. A. 1919. Inbreeding animals. I. Experimental evidence. II. Experimental results. Del. Agr. Exp. Sta. Bul. 123.

Lloyd-Jones, Orren and Evvard, John M. 1919. Studies on color in swine. Iowa State Coll. Res. Bul. 53.

Murphrey, H. S. 1919. A method of operating scrotal hernia in boar pigs to save the testicle. J. Amer. Vet. Med. Assn. 55(N.S.) 8:62.

1919

Robison, W. L. 1919. Effect of age of sows on the rate and economy of gains.
Ohio Agr. Exp. Sta. Bul. 335.

1920

Anon. 1920. The story of the blue hog (Sapphire swine). The Blue Hog
Breeding Co., Wilmington, Mass.

Ashby, R. C. and Malcomson, A. W. 1920. Variation of individual pigs in
economy of gain. J. Agr. Res. 14(5):225-234.

Carmichael, W. J. and Rice, John B. 1920. Variations in farrow: with
special reference to the birth weight of pigs. Ill. Agr. Exp. Sta. Bul.
226.

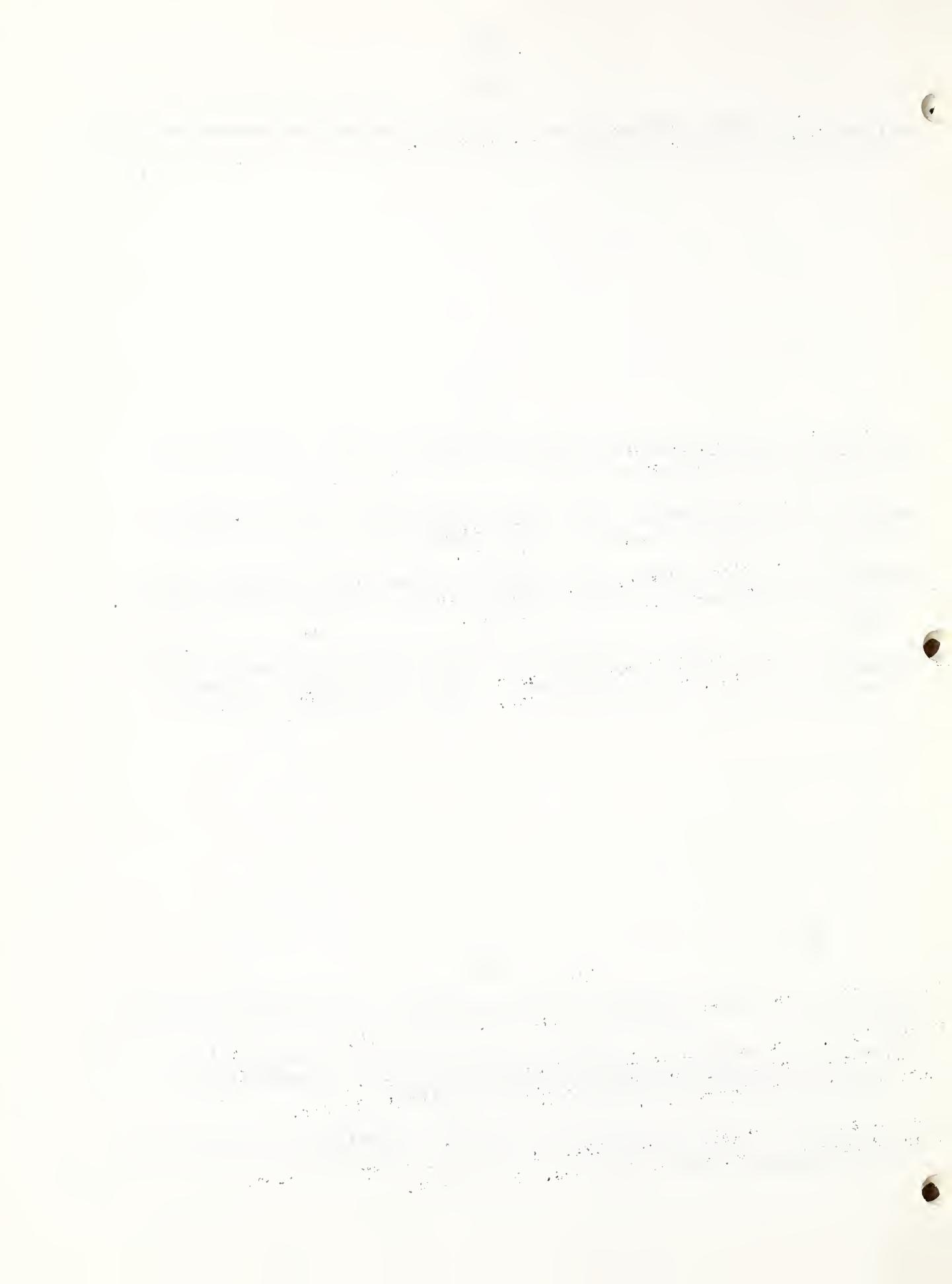
Longwell, J. H. 1920. The influence of the periods of gestation and lac-
tation upon young swine. M.A. Thesis. Univ. of Mo. Libr. Columbia.

1921

Corner, G. W. 1921. The ovarian cycle of swine. Science 53(1374):420-421.

Corner, G. W. 1921. Cyclic changes in the ovaries and uterus of the sow, and
their relation to the mechanism of implantation. Carnegie Instit.,
Washington. Contr. to Embryol. No. 64(13):117-146.

Detlefsen, J. A. and Carmichael, W. J. 1921. Inheritance of syndactylism,
black, and dilution in swine. J. Agr. Res. 20:595-604.



1921

Ellinger, Tage. 1921. The influence of age on fertility in swine. Proc. Natl. Acad. Sci. 7(5):134-138.

Hammond, J. 1921. Further observations on the factors controlling fertility and foetal atrophy. J. Agr. Sci. 11(4):337-366.

Lush, Jay L. 1921. Inheritance in swine. J. Hered. 12:57-71.

Mumford, F. B. 1921. The effect on growth of breeding immature animals. Mo. Agr. Exp. Sta. Res. Bul. 45.

Swanson, C. C. 1921. Effects of rations on the development of the pig. I. The chemical composition of pigs as influenced by the character of the ration. J. Agr. Res. 21:279-341.

1922

Bernard, P. M. 1922. The influence of plane of nutrition and continued early breeding upon immature sows. M.A. Thesis. Univ. of Mo. Libr. Columbia.

Carr-Saunders, H. M. 1922. Notes on inheritance in swine. Sci. N.S. 55:19, #1410.

Chief of the Bureau of Animal Industry Report. 1922. Piney Woods Rooter Type. Anon. p. 8.

Hammond, John. 1922. On the relative growth and development of various breeds and crosses of pigs. J. Agr. Sci. 12:387-423.



1923

Brody, S. and Ragsdale, A. C. 1923. The equivalence of age in some domestic mammals. Normal Growth of Domestic Mammals. Mo. Agr. Exp. Sta. Res. Bul. 62:53-58.

Corner, G. W. 1923. The problem of embryonic pathology in mammals, with observations upon intra-uterine mortality in the pig. Amer. J. Anat. 31(5):523-545.

Crew, F.A.E. 1923. Studies on intersexuality; a peculiar type of developmental intersexuality in the male of domestic mammals. Proc. Royal Soc. 395:90-109.

Crew, F.A.E. 1923. Three cases of developmental intersexuality in the pig. Vet. J. 79:173.

Evvard, J. M. and Culbertson, C. C. 1923. Studies in swine type. Iowa Agr. Exp. Sta. AH D-95, (Released Swine Breeders Day, Nov. 16, 1923).

Hogan, A. G. and Skourby, C. I. 1923. Determination of the surface area of cattle and swine. J. Agr. Res. 25(10):419-430.

McKenzie, F. F. 1923. The factor of age in the breeding of swine. M.A. Thesis. Univ. of Mo. Libr. Columbia.

Miner, E. T. 1923. The prolificacy of spotted Poland China swine. M.S. Thesis. Iowa State Coll. Libr. Ames.

Mumford, F. B., Hogan, A. G., and Bernard, P. M. 1923. Growth curves of swine. Normal Growth of Domestic Animals. Mo. Agr. Exp. Sta. Res. Bul. 62:36-39.

Parkes, A. S. 1923. Studies on the sex ratio and related phenomena. (4) The frequency of sex combinations in pig litters. Biometrika. 15(3,4): 373-381.

Wentworth, Edward N. and Lush, Jay L. 1923. Inheritance in swine. J. Agr. Res. 23(7):557-582.



1924

Crew, F.A.E. 1924. Blue and white color in swine. J. Hered. 15:395-396.

Culbertson, C. C. 1924. The costly influence of an inferior sire. Iowa Agr. Exp. Sta. AH Sect. Leaflet 101.

Culbertson, C. C. and Evvard, John M. 1924. Type test studies--typical litter comparisons. Iowa Agr. Exp. Sta. AH Sect. Leaflet 106. (Swine Feeders Day, Nov. 21).

Ellinger, Tage U. and Evvard, John M. 1924. The register of performance for swine. Rec. Proc. 16th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1923. pp. 57-61.

1925

Anon. 1925. Long-bodied vs. short-bodied hogs. Monthly letter to animal husbandmen. Armour & Co., Chicago. 6(9):_____.

Crew, F.A.E. 1925. Animal Genetics. Edinburgh.

Crew, F.A.E. 1925. Prenatal death in the pig and its effect on the sex ratio. Proc. Roy. Soc. Edinburgh. 46:9-14.

Culbertson, C. C. and Evvard, J. M. 1925. The costly influence of an inferior sire. Iowa Agr. Exp. Sta. AH Sect. Leaflet 1.

Ellis, N. R. and Hankins, O. G. 1925. Soft pork studies. I. Formation of fat in the pig on a ration moderately low in fat. J. Biol. Chem. 66:101-122.

Hogan, A. G., Weaver, L. A., Edinger, A. T., and Trowbridge, E.A. 1925. The relation of feed consumed to protein and energy retention. Mo. Agr. Exp. Sta. Res. Bul. 73.



1925

-14-

Marshall, F.H.A. and Hammond, J. 1925. The physiology of animal breeding, with special reference to the problem of fertility. Ministry of Agr. Monograph No. 2.

McPhee, Hugh C. and Zeller, John H. 1925. Unusual coat colors in swine. J. Hered. 16:347-350.

Parkes, A. S. 1925. Studies on the sex ratio and related phenomena. VII. The foetal sex ratio in the pig. J. Agr. Sci. 15:284-299.

Roberts, E. and Laible, R. J. 1925. Heterosis in pigs. J. Hered. 16:383-385.

1926

Christensen, F. W., Thompson, O. A., and Jorgenson, L. 1926. Prolificacy of sows and mortality of pigs. N. Dak. Agr. Exp. Sta. Bul. 194.

Craft, W. A. 1926. Genetic investigations with swine at the Oklahoma station: a study of two different systems of breeding, limited inbreeding and out-crossing when practiced with swine. Okla. Agr. Exp. Sta. Bien. Rept. 1924-26. p. 36.

Craft, W. A. 1926. Pigs inherit swirl hair. Okla. Agr. Exp. Sta. Rept. 1926-1930. p. 86.

Ellis, N. R. and Isbell, H. S. 1926. Soft pork studies. II. The influence of the character of the ration upon the composition of the body fat of hogs. J. Biol. Chem. 69:219-238.

Evvard, J. M. and Culbertson, C. C. 1926. Studies of types. Amer. Hampshire Herdsman. 1:6. July.

Evvard, John M., Culbertson, C. C., Shearer, P. S., Bassett, C. F., and Hammond, W. E. 1926. Crossbreds versus purebreds in producing market hogs. II. Development of the crossbred and purebred pigs from weaning time to market. Iowa Agr. Exp. Sta. AH Sect. Leaflet 20. pp. 6-11.

1926

Haas, G. C. and Ezekiel, M. 1926. Factors affecting the price of hogs. USDA Bul. 1440.

Hankins, O. G. and Ellis, N. R. 1926. Some results of soft pork investigations. USDA Bul. 1407.

McKenzie, F. F. 1926. The normal oestrus cycle in the sow. Mo. Agr. Exp. Sta. Res. Bul. 86.

McKenzie, Fred F. 1926. Growth of swine. Mo. Agr. Exp. Sta. Bul. 96.

Shearer, P. S., Evvard, John M., Culbertson, C. C., and Hammond, W. E. 1926. Crossbreds versus purebreds in producing market hogs. I. General plan of experiment together with data for the period, mating to weaning time. Iowa Agr. Exp. Sta. AH Sect. Leaflet 20. pp. 1-6.

Warwick, B. L. 1926. Inheritance of black in swine. J. Hered. 17:251-255.

Warwick, B. L. 1926. Intra-uterine migration of ova in the sow. Anat. Rec. 33(1):29-33.

Warwick, B. L. 1926. A study of hernia in swine. Wis. Agr. Exp. Sta. Bul. 69.

Warwick, B. L. and Van Lone, E. E. 1926. The effect of castration on pigs at different ages. J. Amer. Vet. Med. Assn. 69(N.S.) 22(5):1-9.

1927

Brody, S. 1927. Growth and development. III. Growth rates, their evaluation and significance. Mo. Agr. Exp. Sta. Res. Bul. 97.

Cole, L. J. 1927. Genetic foundations in crossbreeding. Rec. Proc. 18th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-29, 1925. pp. 39-42.

Culbertson, C. C. and Evvard, John M. 1927. A superior litter of crossbred pigs. Rec. Proc. 18th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-29, 1925. pp. 53-59.



1927

Davidson, H. R. and Andreasen, J. 1927. Pig carcasses for Wiltshire bacon. J. Min. Agr. 33:1095-1102.

Ferrin, E. F. 1927. The Danish system of swine improvement. Rec. Proc. 19th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 26-28, 1926. pp. 231-235.

Hadley, F. B. and Warwick, B. L. 1927. Inherited defects of livestock. J. Amer. Vet. Med. Assn. LXX N.S. 23: 492-504.

Lush, Jay L. 1927. Percentage of blood and mendelism. J. Hered. 18:351-367.

McPhee, H. C. 1927. The swine herdbook as a source of data for the investigation of the sex ratio and frequency of sex combinations in pig litters. J. Agr. Res. 34(8):715-726.

McPhee, Hugh C. 1927. The value of herdbook data for the genetic investigation of sex ratio and frequency of sex combinations in swine. Rec. Proc. 19th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 26-28, 1926.

Mumford, F. B., Hogan, A. G., and Mackenzie, F. F. 1927. Swine breeding: the effect of age, unfavorable dietary conditions, and the normal oestrous cycle. Rec. Proc. 18th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-29, 1925. Chicago. pp. 85-87.

Roberts, E. 1927. Inheritance of resistance to disease. Rec. Proc. 18th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-29, 1925. pp. 50-53.

Severson, Albert. 1927. Prolificacy of sows and mortality of pigs. Rec. Proc. 18th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-29, 1925. pp. 60-62.

Wentworth, E.N. 1927. Practical considerations in crossbreeding. Rec. Proc. 18th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-29, 1925. pp. 42-49.

1928

Axelsson, Joel. 1928. Important factors in swine breeding. Nordisk Jordbrugs-forskning. Heft 6-8A.

Baker, J. R. 1928. A new type of mammalian intersexuality. British J. Expt. Biol. 6:56-64.

Craft, W. A. 1928. A survey of livestock feeding and breeding practices. Okla. Agr. Exp. Sta. Cir. 73.

Craft, W. A. 1928. Variations among outbred and inbred litters of swine. Rec. Proc. 20th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-27, 1927. pp. 62-64.

Crampton, E. W. 1928. Individual feeding for comparative feeding trials with hogs. MacDonald Coll. Tech. Bul. 5.

Culbertson, C. C., Evvard, John M., Kildee, H. H., and Helser, M. D. 1928. Swine performance record. Litter comparisons. Series I. Iowa Agr. Exp. Sta. Leaflet 26.

Davidson, H. R. and Smith, A.D.B. 1928. Pig testing and recording for the purpose of advanced registry. Pig Breed. Ann. 1927-28, pp. 50-52.

Evvard, John M., Snell, M. G., Culbertson, C. C., and Snedecor, George W. 1928. Correlations between daily gains and feed requirements of growing and fattening swine. Rec. Proc. 20th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-27, 1927. pp. 85-92.

Griswold, D. J., Trowbridge, P. F., Hogan, A. G., and Haigh, L. D. 1928. The effect of gestation and lactation upon the growth and composition of swine. Mo. Agr. Exp. Sta. Res. Bul. 114.

Hammond, J. 1928. Growth and conformation in the pig. Pig Breed. Ann. 1927-28.

Hankins, O. G., Ellis, N. R., and Zeller, J. H. 1928. Some results of soft pork investigations. USDA Bul. 1492.

Isben, H. L. 1928. Prenatal growth in guinea pigs with special reference to environmental factors affecting weight at birth. J. Exp. Zool. 51:51-91.

McKenzie, Fred F. 1928. Growth and reproduction in swine. Mo. Agr. Exp. Sta. Res. Bul. 118.

Nordby, J. E. and Taylor, B. L. 1928. A syncephalus thoracopagus monster in swine. Amer. Nat. 62:34-47.

1928

Nordby, Julius E. 1928. Sterility in boar responsible for reduced size of litters. *J. Amer. Vet. Med. Assn.* 74:911-912.

Scott, E. L. 1928. Some factors affecting the killing quality of hogs. *Rec. Proc. 20th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 25-27, 1927. pp. 121-131.

Sinclair, R. D. and Syrotuck, M. 1928. Age as a factor in swine reproduction. *Sci. Agr.* 8:492-497.

Warwick, B. L. 1928. Inheritance of scrotal hernia in swine. *Ohio Bimonthly Bul.* 13(1):15-18. Jan-Feb.

Warwick, B. L. 1928. Prenatal growth in swine. *J. Morph. & Phys.* 46(1):59-84.

Wentworth, E. N. 1928. The packer's interest in crossbreeding. *Rec. Proc. 20th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 25-27, 1927. pp. 64-69.

1929

Axelsson, Joel. 1929. Relation between number of pigs in a litter and weight at birth. *Nordisk Jordbrugsforskning Hefte 4-7.*

Axelsson, Joel. 1929. Results from pig experiments in Malmohus County. *Forlagsaktiebolagets Boktrgckeri I. Malmo.*

Bull, Sleeter, and Longwell, J. H. 1929. Swine type studies. II. Type in swine as related to quality of pork. *Ill. Agr. Exp. Sta. Bul.* 322.

Carroll, W. E., Bull, Sleeter, Rice, J. B., Laible, R. J., and Smith, R. A. 1929. Swine type studies. I. Type in swine as related to rate and economy of gain. *Ill. Agr. Exp. Sta. Bul.* 321.

Cole, L. J. and Kuhlman, A. H. 1929. Birth weight - important factor in swine production. *Wis. Agr. Exp. Sta. Bul.* 405.



1929

Crampton, E. W. 1929. Individual feeding in swine experimentation. MacDonald Coll. Tech. Bul. 5a.

Davidson, H. R. and Duckham, A. N. 1929. First report on the East Anglian pig recording scheme. Univ. of Cambridge, Dept. of Agr.

Deighton, T. 1929. A study of the metabolism of two breeds of pig (with some remarks on a third). J. Agr. Sci. (Eng.) 19(1):140-184.

Deighton, T. 1929. A study of the metabolism of two breeds of pig (with some remarks on a third). Exp. Sta. Rec. 61(3):260.

Evvard, John M. 1929. A new feeding method and standard for fattening young swine. Iowa Agr. Exp. Sta. Res. Bul. 118.

Evvard, John M., Culbertson, C. C., and Snedecor, George W. 1929. How many animals per experimental lot? Rec. Proc. 21st Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 2, 1928. pp. 161-176.

Hammond, J. 1929. The carcass classes at Smithfield. Pig Breed. Ann. 1928-29.

Johansson, Ivar. 1929. Length of gestation period in cattle and swine. (English Summary). Sartryck ur Ultuna Landbruksinstituts Arsberattelse For Ar 1928. pp. 41-59.

Kuhlman, L. H. and Cole, L. J. 1929. Birth weight important factor in swine production. Wis. Agr. Exp. Sta. Bul. 405: 63-64.

Mitchell, H. H. and Hamilton, T. S. 1929. Swine type studies. III. The energy and protein requirements of growing swine and the utilization of feed energy in growth. Ill. Agr. Exp. Sta. Bul. 323.

Nordby, Julius E. 1929. An inherited skull defect in swine. J. Hered. 20:228-232.

Nordby, Julius E. 1929. Sterility in boar responsible for reduced size of litters. J. Amer. Vet. Med. Assn. 74 (N.S.) 27(6):911-914.

Rodenwold, E. W. 1929. Correlation study of fecundity in registered Hampshire swine. M.S. Thesis. Iowa State Coll. Libr. Ames.

Shaw, A. M. 1929. Variations in the skeletal structure of the pig. Sci. Agr. 10:23-27.

1930

Cole, L. J., Park, J. S., and Deakin, A. 1930. The seedy cut problem in swine. Rec. Proc. 22nd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1929. pp. 145-147.

Craft, W. A. 1930. The influence of birth weight upon subsequent development of inbred and outbred pigs. Rec. Proc. 22nd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1929. pp. 128-130.

Ellinger, T. U. 1930. Is the size of litter a hereditary factor in swine. Pol. China J. 17(3):16-17.

Ellis, N. R. and Zeller, J. H. 1930. Soft pork studies. IV. The influence of a ration low in fat upon the composition of the body fat of hogs. J. Biol. Chem. 89:185-187.

Grimes, J. C., Sewall, W. E., and Taylor, W. C. 1930. Grading up hogs by the use of purebred sires. Ala. Polytech. Instit. Bul. 234.

Hammond, John. 1930. Fertility in pigs. Pig Breed. Ann. 1929-30.

Helmreich, F. H. 1930. Factors influencing deposition of fat on the hog. Rec. Proc. 22nd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1929. pp. 143-145.

Keith, T. B. 1930. Relation of size of litter to age of dam and to size of succeeding litters. J. Agr. Res. 41(8):593-600.

Kitchin, A.W.M. 1930. Third report East Anglican Pig recording scheme. Cambridge Dept. Agr.

Korenchevsky, V. 1930. Experimental cryptorchidism in pigs. J. Path. and Bact. 33(3):683-687.

Larsson, S. 1930. Pig testing and litter recording in Sweden. Pig Breed. Ann. 9:28.

((

— 4 —

((

— 5 —

((

1930

Longwell, J. H., Henderson, H. O., and Insko, W. M., Jr. 1930. Growth studies with swine. W. Va. Agr. Exp. Sta. Bul. 230.

McKenzie, F. F. and Miller, J. C. 1930. Length of the period of heat in gilts and sows and the length of the interval between heat periods. Mo. Agr. Exp. Sta. Bul. 285.

Nordby, Julius E. 1930. Congenital ear and skull defects in swine. J. Hered. 21:499-502.

Russell, E. Z. 1930. Hog feeding tests show barrows gain more than gilts. USDA Yearbook 1930. pp. 320-323.

Sasaki, K. and Moribe, K. 1930. On the serological distinction of the wild boar and the domestic pig. Annotationes Zoologicae Japonenses. 12(2): 433-439.

Scott, E. L. 1930. Factors that influence the significance of carcass data. Rec. Proc. 22nd Ann. Meet. Amer. Soc. Anim. Prod., Nov. 29-Dec. 1, 1929. pp. 136-142.

Scott, E. L. 1930. The influence of the growth and fattening process on the quantity and quality of meat yielded by swine. Ind. Agr. Exp. Sta. Bul. 340.

Shaw, A. M. 1930. A method of determining the variations in the vertebral column of the live pig. Sci. Agr. 10:690-695.

Smith, A.D.B. and Calder, A. 1930. Pig testing station. First Rept. covering the period from June 1928 to March 31, 1930. Univ. Edinburgh. Anim. Breed. Res. Dept.

Wriedt, C. 1930. Heredity in livestock. MacMillan Co., N.Y.

1931

Craft, W. A. 1931. Inbred and crossbred pigs in the feed yard. (Mimeo.) May 2, 1931.

Craft, W. A. 1931. The inheritance of hair whorls. Proc. Okla. Acad. Sci. 12:7-8.

Crampton, E. W. 1931. Individual feeding for the comparative feeding trial. Rec. Proc. 23rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 28-29, 1930. pp. 56-63.

Culbertson, C. C., Evvard, John M., Kildee, H. H., and Helser, M.D. 1931. Swine performance record litter comparisons. Iowa Agr. Exp. Sta. Bul. 277.

Davidson, H. R., Duckham, A. N., and Kitchin, A. W. M. 1931. Repts. East Anglican Pig recording scheme. Nos. 1-3. Cambridge Dept. Agr.

Hetzer, Herbert O. 1931. The relation between litter size and birth weights in swine. M.S. Thesis. Iowa State Coll. Libr. Ames.

Lush, Jay L. 1931. Interpreting the results of group feeding experiments. Rec. Proc. 23rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 28-29, 1930. pp. 44-55.

Lush, Jay L. 1931. Predicting gains in feeder cattle and pigs. J. Agr. Res. 42:853-881.

McKenzie, F. F. 1931. Cryptorchidism in swine and anatomy of cryptorchid boars. Mo. Agr. Exp. Sta. Bul. 300.

McKenzie, F. F. 1931. A method for the collection of boar semen. Amer. Vet. Med. Assn. 78:244-246.

McPhee, Hugh C. 1931. Swine inbreeding at the United States Department of Agriculture Laboratories and at the State Experiment Stations. Rec. Proc. 23rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 28-29, 1930. pp. 128-131.

McPhee, Hugh C. 1931. Swine inbreeding at the United States Department of Agriculture -- a progress report. Rec. Proc. 23rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 28-29, 1930. pp. 131-134.

McPhee, Hugh C., Russell, E. F., and Zeller, John. 1931. An inbreeding experiment with Poland China swine. J. Hered. 22:393-403.

((

((

((

1931

Roberts, Elmer and Carroll, W. E. 1931. The inheritance of "hairlessness" in swine. Hypotrichosis II. J. Hered. 22:125-132.

Russell, E. Z. 1931. Age as a factor in brood sow performance. (Mimeo) BAI, AH.

Schmidt, J., Schleinitz, M. F. Von, Lagneau, E., and Zimmerman, C. 1931. The composition of the pigs body. (German). Arch. Tierernahr. Tierz. 5:238-375.

Schmidt, J. and Vogel, H. 1931. Studies of the weights of internal organs in fattening pigs and their relation to performance and conformation. (German). Zuchungskunde 6:224-232.

Scott, E. L. and Block, H. W. 1931. A method for removing fat samples from live hogs. J. Agr. Res. 42:47-51.

Smith, A.D.B. 1931. Litter size. Is it inherited. Pig Breed. Ann. 1930-31. pp. 46-52.

Warwick, B. L. 1931. Breeding experiments with sheep and swine. Ohio Agr. Exp. Sta. Bul. 480.

1932

Aubel, C. E., Hughes, J.S., and Lienhardt, H. F. 1932. A study of mortality among young pigs. The influence of wheat germ meal on the reproduction and suckling of pigs. Kans. Agr. Exp. Sta. Tech. Bul. 31.

Brandt, A. E. 1932. A statistical study of the relation of sex, breed, and live measurements to carcass weight in swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.



1932

Craft, W. A. 1932. Four generations of inbred pigs in the feed yard. Okla. Agr. Exp. Sta. Mimeo. Rept. Apr. 30, 1932.

Craft, W. A. 1932. Further observations on inbred and outbred pigs in the feed yard. Rec. Proc. 24th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-28, 1931. pp. 265-266.

Craft, W. A. and Moe, L. H. 1932. Statistical observations involving weights, hemoglobin, and the properties of white blood cells in pigs. J. Amer. Vet. Med. Assn. 81(N.S.) 34(3):405-407.

Crampton, E. W. 1932. Estimating statistically the significance of differences in comparative feeding trials. Sci. Agr. 13(1):16-25.

Culbertson, C. C., Kildee, H. H., Heiser, M. D., and Hammond, W. E. 1932. Swine performance record. Litter comparisons. Series II. Iowa Agr. Exp. Sta. Leaflet 28.

Deakin, Alan. 1932. Cases of extreme sexual infantilism in the sow. Anat. Rec. 51(3):361-371.

Godbey, E. G. and Starkey, L. V. 1932. A genetic study of the effects of intensely inbreeding Berkshire swine. S. Car. Agr. Exp. Sta. Ann. Rept. p. 42.

Hammond, J. 1932. Pigs for pork and pigs for bacon. J. Roy. Agr. Soc. England. 93:131-145.

Hammond, J. and Marshall, F. H. 1932. Fertility and animal breeding. Min. Agr. Fish Bul. 39.

Henning, G. F. and Stout, W. B. 1932. Factors influencing the dressing percentage of hogs. Ohio Agr. Exp. Sta. Bul. 505.

Johansson, I. 1932. Problems in breeding for high prolificacy. Pig Breed. Ann. 1931-32. 11:80-87.

Lush, Jay L. 1932. The amount and kind of inbreeding which has occurred in the development of breeds of livestock. Proc. Sixth Internat'l. Cong. Genetics. Aug. 24-31, 1932. 2:123-126. Ithaca.

Lush, Jay L. 1932. An empirical test of the approximate method of calculating coefficients of inbreeding and relationship from livestock pedigrees. J. Agr. Res. 45:565-569.

Lush, Jay L. 1932. Genetic aspects of the record of performance work with swine. Rec. Proc. 24th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-28, 1931. pp. 51-62.

1932

McKenzie, F. F. 1932. The optimum time to breed gilts. Mo. Agr. Exp. Sta. Bul. 310.

McPhee, H. C. 1932. The effects of inbreeding and crossbreeding on swine. Proc. VI Int. Cong. Genetics. 2:132.

McPhee, Hugh C. 1932. Size of litter as a selection index in swine. Rec. Proc. 24th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-28, 1931. pp. 262-264.

Morris, H. P. and Johnson, D. W. 1932. Effects of nutrition and heredity upon litter size in swine and rats. J. Agr. Res. 44(6):511-521.

Nordby, J. E. 1932. Type in market swine and its influence on quality of pork. Idaho Agr. Exp. Sta. Bul. 190.

Nordby, Julius E. 1932. Inheritance of whorls in the hair of swine. J. Hered. 23:397-404.

1933

Axelsson, Joel. 1933. More about the results of purebreeding and crossbreeding in the county of Malmo. Nordisk Jordbrugforskning Heft. 7:372-402.

Axelsson, Joel. 1933. Results of experiments in fattening swine in the herds of Malmo County. Z. Zuchtg. B. Tierzuchtg W. Zuchtgbiol. Bd. 28 Heft 2.

Axelsson, Joel. 1933. Some results of pig testing in Malmohus County. A. Zuchtg. B. 28:157-191.

Bryden, W. 1933. The chromosomes of the pig. Cytologia. 5:149.

Cole, L. J., Park, J. S., and Deakin, A. 1933. Seedy cut as affecting bacon production. Wis. Agr. Exp. Sta. Bul. 118.

Craft, W. A. 1933. Further observations on inbred and outbred pigs. Okla. Agr. Exp. Sta. Mimeo. Rept. Apr. 22, 1933.

Craft, W. A. 1933. Inheritance of swirl hair in hogs. Okla. Agr. Exp. Sta. Mimeo. Rept. Apr. 22, 1933.

Craft, W. A. 1933. The performance of inbred sires. Okla. Agr. Exp. Sta. Mimeo. Rept. Apr. 13, 1933.

Culbertson, C. C., Kildee, H. H., Helser, M. D., and Hammond, W. E. 1933. Swine performance record. Litter comparisons. Series III. Iowa Agr. Exp. Sta. Leaflet 30.

Davis, W. C., McCarthy, B. F., and Burgess, J. A. 1933. Market classes and grades of pork carcasses and fresh pork cuts. USDA Cir. 288.

Deakin, Alan. 1933. Melanic pigmentation of the mammary glands of fetal and early post natal pigs. M.S. Thesis. Univ. of Wis. Libr. Madison.

Ferrin, E. F. 1933. Pig testing in the U.S.A. Pig Breed. Ann. 12:53.

Ferrin, E. F. 1933. Production tests for selection of breeding hogs. Rec. Proc. 25th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-26, 1932. pp. 134-137.

Hale, Fred. 1933. Pigs born without eyeballs. J. Hered. 24:105-106.

Hughes, E. H. 1933. Inbreeding Berkshire swine. J. Hered. 24:199-203.

Lacy, Myron D. 1933. Differences between barrows and gilts in the proportion of pork cuts. Rec. Proc. 25th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-26, 1932. pp. 354-357.

Lsuh, Jay L. 1933. Linebreeding. Iowa Agr. Exp. Sta. Bul. 301.

Lush, Jay L. 1933. Use of statistical methods in animal husbandry. (Abs.) Rec. Proc. 25th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-26, 1932. pp. 15-19.

Moltesen, P. A. 1933. Some results of the experimental work on pigs in Denmark. Pig Breed. Ann. 1932-33:45-49.

Nordby, J. E. 1933. Cryptorchidism and its economic importance to the processor of pork products. J. Amer. Vet. Med. Assn. 82:901-912.

Nordby, J. E. 1933. Cryptorchidism and its influence on quality of pork. Idaho Agr. Exp. Sta. Res. Bul. 192.



1933

Nordby, Julius E. 1933. Congenital melanotic cutaneous tumors in swine. J. Hered. 24:361-364.

Russell, O. Z. 1933. The relation of birth weight to gains of pigs. USDA BAI, AHD Mimeo.

Shepperd, J. H. and Severson, Albert. 1933. Wiltshire sires - factors which influence production and quality. N. Dak. Agr. Exp. Sta. Tech. Bul. 263.

Smith, A.D.B. 1933. Pig testing and recording. Agr. Prog. 10:114-119.

Snedecor, George W. and Culbertson, C. C. 1933. An improved design for experiments with groups of animals whose outcome may be estimated. Rec. Proc. 25th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-26, 1932. pp. 25-28.

Zeller, J. H. 1933. Some practical results of swine investigations. Swine World. 20(7).

1934

Axelsson, Joel. 1934. The mortality of young pigs and factors affecting it. Kgl. Lantbruksakad Hand. Tidskr. 73:294.

Craft, W. A. 1934. The effect of inbreeding on rate of growth and resistance to disease in swine. Proc. So. Agr. Workers Assn. Jan. 31-Feb. 2, 1934.

Craft, W. A. and Moe, L. H. 1934. The hemoglobin level in pigs at various ages. Rec. Proc. 26th Ann. Meet. Amer. Soc. Anim. Prod. Dec. 1-2, 1933. pp. 127-131.

Craft, W. A. and Warner, E. A. 1934. Observations on different types of hair whorls in mammals and the inheritance of hair whorls in swine. Proc. Okla. Acad. Sci. 14:23-27.

Davidson, H. R. 1934. The results of 25 years of pig testing in Denmark and their relation to pig recording methods in Great Britain. Pig Breed. Ann. 13:34.

Ellis, N. R. and Zeller, J. H. 1934. Effect of quantity and kinds of feed on economy of gains and body composition of hogs. USDA Tech. Bul. 413.

Grimes, J. C., Sewall, W. E., and Cottier, G.J. 1934. Some factors affecting the cost of raising pigs to weanling age. Alabama Agr. Exp. Sta. Cir. 68. Auburn.

Hammond, John. 1934. The anatomy of pigs in relation to market requirements. Pig Breed. Ann. 1933-34. 13:28-33.

Hammond, John. 1934. Factors producing sterility with special reference to genetic causes. Proc. Roy. Soc. Med. 26:1183.

Hammond, John. 1934. Pig Recording. Royal Lancashire Agr. Soc. J.

Hammond, John and Murray, G. N. 1934. Grading meat. The prices given for carcasses of different weights and qualities. J. Agr. Sci. 24(2):233-249.

Hankins, O. G. and Ellis, N. R. 1934. Physical characteristics of hog carcasses as measures of fatness. J. Agr. Res. 48:257-264.

Hughes, E. E. and Hart, Hugh. 1934. Defective skulls inherited in swine. J. Hered. 25:111-115.

Hutt, F. B. 1934. Inherited lethal characters in domestic animals. Cornell Vet. 24(1):1-25.

Lush, Jay L., Anderson, A. L., Culbertson, C. C., and Hammond, W. E. 1934. The reliability of some measures of productiveness of individual brood sows. Rec. Proc. 26th Ann. Meet. Amer. Soc. Anim. Prod. Dec. 1-2, 1933. pp. 282-287.

Lush, Jay L., Hetzer, H. O., and Culbertson, C. C. 1934. Factors affecting birth weights of swine. Genetics. 19:329-343.

McPhee, H. C. and Zeller, J. H. 1934. The stillborn pig. Amer. Vet. Med. Assn. J. 85:224-231.

McPhee, Hugh C. and Buckley, S. S. 1934. Inheritance of cryptorchidism in swine. J. Hered. 25:295-303.

Musson, A. L. 1934. A comparison of crossbreeding and purebreeding in pork production. M.S. Thesis. Iowa State Coll. Libr. Ames.

Nordby, J. E. 1934. White spotting in Duroc-Jersey swine. J. Agr. Res. 49(7):625-642.

Nordby, J. E. and Gildown, E. M. 1934. Modifying effect of cryptorchid testes on the homologous accessory sex glands in swine. Rec. Proc. 26th Ann. Meet. Amer. Soc. Anim. Prod. Dec. 1-2, 1933. pp. 271-273.



Nordby, Julius E. 1934. Congenital defects in the mammae of swine. J. Hered. 25:498-502.

Nordby, Julius E. 1934. Kinky tail in swine. J. Hered. 25:171-174.

Olbrycht, T. M. 1934. II. Studies on life performance of brood sows. The judging of brood sows by their number of offspring born and reared in the earliest litters. J. Agr. Sci. 33(2):74-84.

Rhoad, A. O. 1934. Wooly hair in swine. J. Hered. 25:371-375.

Roberts, E. and Carroll, W. E. 1934. Swine selection studies continued. Ill. Agr. Exp. Sta. Rept. 1933-1934. p. 101.

Rodolfo, A. 1934. The semen of boars under different intensiveness of mating. Philippine J. Sci. 55:182-203.

Smith, A.D.B. and Robinson, J. O. 1934. Heredity in pigs. Vet. J. 90:119-127.

Taussig, S. 1934. Pig recording in different countries. Int. R. Ag. 25: 6,255T.

Taussig, S. 1934. Pig recording in different countries. Part II. Int. R. Ag. 25:7,306T.

Warner, K. F., Ellis, N. R., and Howe, P. E. 1934. Cutting yields of hogs as an index of fatness. J. Agr. Res. 48(3):241-255.

1935

Bonsma, F. N. and Oosthuizen, P.M. 1935. Milk production in large black sows and its importance in relation to the production of weaners. S. African J. Sci. 32:360-378.

Bull, Sleeter, Olson, F. C., Hunt, G. E., and Carroll, W. E. 1935. Value of present day swine types in meeting changed consumer demand. Ill. Agr. Exp. Sta. Bul. 415.

1935

Bywaters, James L., Culbertson, C. C., and Hammond, W. E. 1935. The relationship of degree of inbreeding to size of litter in Poland China pigs. Rec. Proc. 27th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1934. pp. 215-217.

Callow, E. H. 1935. Carcass quality of the pig in relation to growth and diet. Emp. J. Expt. Agr. 3:80-104.

Craft, W. A. 1935. The correlation of progress in genetic research with the prevailing practices in animal breeding: Discussion. Rec. Proc. 27th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1934. pp. 203-204.

Craft, W. A. 1935. Influence of individuality on feed consumption by inbred and outbred pigs. So. Agr. Workers Assn. Proc. 34th, 35th, & 36th Ann. Conv. 1935:491.

Craft, W. A. 1935. Type changes in an inbred stock of swine. Rec. Proc. 27th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1934. pp. 110-111.

Davidson, H. R. 1935. Whither pig recording. Pig Breed. Ann. 14:51.

Deakin, A. and Fraser, E. B. 1935. Fecundity and nursing capacity of large Yorkshire sows. Sci. Agr. 15(7):458-462.

Enzmann, E. V. and Crozier, W. J. 1935. Relation between birth weight and litter size in multiparous mammals. J. General Phys. 18:791-799.

Ferrin, E. F. 1935. Production records as a basis for selection. Rec. Proc. 27th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1934. pp. 112-114.

Hammond, J. 1935. The inheritance of productivity in farm livestock. I. Meat. Emp. J. Expt. Agr. 3(9):1-6.

Hammond, John. 1935. Hereditary factors in pigs. Pig Breed. Ann. 15:25-30.

Hammond, John. 1935. The production of pigs for bacon. Carcass quality and breeding for it. Rothamstead Conf., March 6, 1935. 19:_____.

Hankins, O. G. 1935. Relation between type in hogs and the plumpness of their hams. Rec. Proc. 27th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1934. pp. 120-123.

Hankins, O. G. and Zeller, J.H. 1935. Hogs of Danish origin imported for breeding studies in this country. 1935 Yearbook of Agriculture. No. 1526. pp. 231-233.

Henke, L. A. 1935. Is fecundity in swine inherited. J. Hered. 26:455-456.



Hodgson, R.E. 1935. An eight generation experiment in breeding swine. J. Hered. 26:209-217.

Hodgson, R. E. and Clark, R. T. 1935. Inbreeding swine for eight generations. Rec. Proc. 27th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1934. pp. 212-214.

Hughes, E. H. 1935. Polydactyly in swine. J. Hered. 26:415-418.

Hughes, E. H. and Hart, H. G. 1935. Production and composition of sows milk. J. Nutr. 9(3):_____.

Krizenecky, J. 1935. The litter size in the pig in its dependence upon physiological non-hereditary factors. I. The influence of the year-season of the litter and of the birth date of the mother sow of the periods since the last farrowing and of the gestation length. (English Summary). Ann. Czechoslovak Acad. Agr. 10:64-72.

Krizenecky, J. 1935. The litter size in the pig in its dependence upon physiological non-hereditary factors. II. Influence of the age of the mother sow and of the number of the litter. (English Summary). Ann. Czechoslovak Acad. Agr. 10(2):140-154.

Krizenecky, J. 1935. Factors controlling the gestation length in swine. (English Summary). Ann. Czechoslovak Acad. Agr. 10(4):351-358.

Lush, J. L. 1935. What progeny testing has achieved in Denmark. Pig Breed. Gaz. 35:25.

McPhee, Hugh C. 1935. The correlation of progress in genetic research with the prevailing practices in animal breeding. (Abs.) Rec. Proc. 27th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1934. pp. 201-202.

Olson, F. C., Hunt, G. E., and Carroll, W. E. 1935. Value of present-day swine types in meeting changed consumer demand. Ill. Agr. Exp. Sta. Bul. 415.

Reid, J. W. 1935. Pig recording in Hertfordshire and Bedfordshire. J. Min. Agr. 42:766.

Sinclair, R. D. and Murray, J. A. 1935. Some observations on carcass quality in the bacon hog. Sci. Agr. 16(4):169-174.

Whetham, E. O. 1935. Tables showing the carcass weight, carcass percentage and age in relation to the live weight of pigs. Pig Breed. Ann. 1934-1935. 14:188.



1935

Winters, L. M., Jordan, P. S., and Kiser, O. M. 1925. A six years' study of crossbreeding swine. Rec. Proc. 27th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 30-Dec. 1, 1934. pp. 218-220.

Winters, L. M., Kiser, O.M., Jordan, P. S., and Peters, W.H. 1935. A six years' study of crossbreeding swine. Minn. Agr. Exp. Sta. Bul. 320.

1936

Anon. 1936. Purebred vs. crossbred pigs. Mo. Agr. Exp. Sta. Mimeo. Rept.

Berge, S. 1936. Pig testing. An analysis of the results of bacon pig testing. (English Summary). Norges Landbrukshoiskale. Statens Foredlingsstasjon for Svin 8 Meding. Oslo.

Bywaters, J. H. 1936. The relative importance of heredity and environment in determining the variations in weaning weights of Poland-China pigs. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Bywaters, James H. and Willham, Oliver S. 1936. A method of comparing growthiness in pigs weighed at different ages and subjected to different treatments. Rec. Proc. 28th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-30, 1935. pp. 116-119.

Clark, R. T., Kiser, O.M., and Winters, L. M. 1936. The value as sires for swine production of three inbred boars. Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-28, 1936. pp. 229-232.

Craft, W. A. 1936. Utilization of feed by inbred and outbred pigs. Proc. So. Agr. Workers Assn. Feb.

Craft, W. A. and Willham, O. S. 1936. The role of nutrition in genetic research - Digestion trials with inbred and outbred pigs. Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-28, 1936. pp. 260-263.



1936

Davidson, H. R. Hammond, J., Swain, J. B., and Wright, N. L. 1936. A method of judging pork and bacon carcasses. *Pig Breed. Ann.* 16:49-63. N. Z. *J. Agr.* 54:203-215.

Dove, W. Franklin. 1936. The nutritive instincts and food habits of superior individuals as guides to the nutritional requirements of the group. *Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 27-28, 1936. pp. 243-247.

Ellis, N. R., Craft, W. A., and Zeller, J. H. 1936. A preliminary study of variations in free-choice intake of the components of a standard ration and breeding as possible factors in the occurrence of lameness in pigs. *Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 27-28, 1936. pp. 77-81.

Hale, Fred and Godbey, C. B. 1936. The relative accuracy of one-day and three-day weights of pigs. *Rec. Proc. 28th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 29-30, 1935. pp. 119-122.

Hammond, J. 1936. Hereditary factors in pigs. *Pig Breed. Ann.* 1935-36.

Hammond, J. 1936. The problem of quality in relation to meat production. *Scottish J. Agr.* 19(1): _____.

Hammond, J. 1936. The shape of the longissimus dorsi muscle in domestic animals. _____.

Hankins, O. G. and Ellis, N. R. 1936. A study of ham composition with special reference to type of hog. *Rec. Proc. Amer. Soc. Anim. Prod.* Nov. 29-30, 1935. pp. 111-116.

Hillebrand, P. 1936. Untersuchungen über die Chromosomen bei drei verschiedenen Rassen von Hauschweinen. *Diss. Univ. Breslau.* (Anim. Breed. Abs. 5:162-163).

Howe, Paul E. 1936. Introductory remarks before the symposium on the relation of nutrition to genetics research. *Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 27-28, 1936. p. 236.

Johansson, I. 1936. The selection of pigs for breeding. *Pig Breed. Gaz.* Aug.

Kirk, W. G. 1936. Swine production in the southeast. *Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 27-28, 1936. pp. 103-106.

Kleiber, M. 1936. Problems involved in breeding for efficiency of food utilization. *Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 27-28, 1936. pp. 247-258.



1936

Kronacher, C. and Hogreve, F. 1936. Investigations on the causes of rump shape in different breeds of pigs from X-ray studies. Z. Zuch. B. 35:161.

Lambert, W. V., Ellis, N. R., Black, W. H., and Titus, H. W. 1936. The role of nutrition in genetic research. Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-28, 1936. pp.236-243.

Lush, Jay L. 1936. Genetic aspects of the Danish system of progeny testing swine. Iowa Agr. Exp. Sta. Res. Bul. 204.

Lush, Jay L., Thomas, B. H., Culbertson, C. C., and Beard, F. J. 1936. Variations in the softness of lard produced in the record of performance testing. (Abs.) Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-28, 1936. pp. 258-259.

McKenzie, Fred F., Miller, J. C., and Baugus, Lyle C. 1936. Boar semen studies--a preliminary report. Rec. Proc. Amer. Soc. Anim. Prod. Nov. 27-28, 1936. pp. 99-102.

McMeekan, C. P. 1936. Critical study of importance factors in successful pig keeping. Analysis of litter records of the Manawatu-oroua pig development and recording club for the years 1932-35. N. Z. J. Agr. 52:278-289.

McPhee, H. C. and Hankins, O. G. 1936. Swine--some current breeding problems. USDA Yearbook of Agr. pp. 887-905.

Phillips, R. W. 1936. The physiology of spermatozoa. Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-30, 1935. pp. 222-235.

Phillips, R.W. and Andrews, F. N. 1936. The development of the testes and scrotum of the ram, bull, and boar. Mass. Agr. Exp. Sta. Bul. 331.

Phillips, Ralph W. and Dawson, W. M. 1936. A study of methods for obtaining measurements of swine. Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 27-28, 1936. pp. 93-99.

Russell, E. Z. 1936. Age as a factor in brood sow performance. Amer. Hamp. Herdsman. 11(1):14. Jan.

Shaw, A. M., and MacEwan, J. W. G. 1936. A study of certain breeding practices in pig production. Sci. Agr. 16:322-330.



Smith, A.D. Buchanan, Robinson, O.J., and Bryant, D. M. 1936. The genetics of the pig. *Bibliographia Genetica*. 12:1-160. The Hague. Martinus-Nyhoff.

Tuff, P. and Berge, S. 1936, Inheritance of vertebral number and body length in pigs. (German). *Z. Zucht. B.* 35:213-238.

Winters, L. M. 1936. Studies of breeding for increased efficiency. *Rec. Proc. 29th Ann. Meet. Amer. Soc. Anim. Prod.* Nov. 27-28, 1936. pp. 263-265.

Winters, L. M., Kiser, O. M., Jordan, P. S., and Peters, W. H. 1936, You will find greater profits with crossbred swine. *Minn. Agr. Exp. Sta. Spec. Bul.* 180.

Woodman, H. E. and Evans, R. E. 1936. The nutrition of the bacon pig. I. The influence of high levels of protein intake on growth, conformation, and quality in the bacon pig. *J. Agr. Sci.* 26:549-619.

Wowra, W. 1936. Pig breeding in Germany. *Pig Breed. Ann.* 15:36.

1937

Anderson, Arthur L. and Bonsma, Jon C. 1937. Hereford hogs. *J. Hered.* 28:63-64.

Bywaters, James H. 1937. The hereditary and environmental portions of the variance in weaning weights of Poland China pigs. *Genetics*. 22:457-468.

Crampton, E. W. 1937. Self versus handfeeding for market hogs, with particular reference to effects on carcass measurements and quality. *Sci. Agr.* 17:529-539.

Davidson, H. R., Hammond, J., Swain, J. B., and Wright, N. L. 1937. A method for judging pork and bacon carcasses. *Pig Breed. Ann.* 16:1936-1937.



1937

Donald, H. P. 1937. Suckling and suckling preference in pigs. 5(20):361-368.

Eaton, O. N. 1937. A summary of lethal characters in animals and man. J. Hered. 28:320-326.

Ellis, N. R. and Hankins, O. G. 1937. Some relationships between back-fat measurements and weight, firmness and other characteristics of hog carcasses. Rec. Proc. 30th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 26-28, 1937. pp. 242-246.

Green, W. W., Barrett, C., and Winters, L. M. 1937. A technique for the sectioning of mammalian ova and blastocysts. Stain Tech. 12:2.

Hammond, John and Murray, G.N. 1937. The body proportions of different breeds of bacon pigs. J. Agr. Sci. 27(3):394-431.

Hankins, O. G. and Hiner, R. L. 1937. A progress report on the meat yields of Danish Landrace hogs in comparison with certain American breeds. Rec. Proc. 30th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 26-28, 1937. pp. 255-259.

Lush, Jay L. 1937. Rate of gain and feed requirements as related to intensity of inbreeding. Reg. Swine Breed. Lab. Res. Item 1. Aug. 13, 1937. Ames, Iowa.

Lush, Jay L. and Craft, W. A. 1937. Analysis of scores of live pigs scored by different judges. Reg. Swine Breed. Lab. Res. Item 3. Oct. 14, 1937. Ames, Iowa.

Lush, Jay L. and Culbertson, C. C. 1937. Consequences of inbreeding Poland China pigs. Iowa Agr. Exp. Sta. Ann. Rept. Part I. p. 80.

Lush, Jay L. and Molln, A. E. 1937. The degree to which litter size is a constant characteristic of sows. Rec. Proc. 30th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 26-28, 1937. pp. 133-137.

McMeekan, C. P. 1937. Carcass quality in bacon pigs. I. New Zealand bacon pigs in relation to United Kingdom market requirements. New Zealand J. Agr. 54:147-158.

Menzies-Kitchen, A. W. 1937. Fertility, mortality, and growth rate in pigs. J. Agr. Sci. 27(4):611-625.

Rottensten, K. 1937. Inbreeding and relationship in the Danish Landrace breed of swine. (English Summary). Nordisk Jordbrugsforskning. 3(4)A:94-114.

1937

Smith, A.D.B. 1937. Results from pig testing in Denmark. Prof. J. L. Lush's Rept. Pig Breed. Gaz. Feb.

Smith, A.D.B. and Donald, H. P. 1937. Weaning weights of pigs and litter sampling with reference to litter size. J. Agr. Sci. 27(4):485-502.

Stothart, J. G. 1937. An analysis of swine progeny records. Canad. Dept. Agr. Pub. 550. Tech. Bul. 6.

Warwick, B. L. 1937. Breeding experiments with sheep and swine. Ohio Agr. Exp. Sta. Bul. 480.

Whatley, J. A., Jr. 1937. A method for comparing the growth rate of pigs weighed at different ages. M.S. Thesis. Iowa State Coll. Libr. Ames.

Whatley, J. A., Jr. and Quaife, E. L. 1937. Adjusting weights of pigs to a standard age of 56 days. Rec. Proc. 30th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 26-28, 1937. pp. 126-130.

Whatley, J. A., Jr. and Quaife, E. L. 1937. A method for correcting pig weights to a 56-day basis. Reg. Swine Breed. Lab. Res. Item 2. Aug. 20, 1937. Ames, Iowa.

Winters, L. M., Jordan, P. S., Kiser, O. M., and Comstock, R.E. 1937. The Minnesota studies of crossbreeding swine. Rec. Proc. Amer. Soc. Anim. Prod. Nov. 26-28, 1937. pp. 196-203.

Winters, L. M., Kiser, O. M., Jordan, P. S., and Peters, W. H. 1937. Crossbred swine. Minn. Agr. Exp. Sta. Ext. Ser. Spec. Bul. 180.

Zeller, J. H., Johnson, T. G., and Craft, W. A. 1937. The significance of weight changes in sows during the gestation and suckling periods. Rec. Proc. 30th Ann. Meet. Amer. Soc. Anim. Prod. Nov. 26-28, 1937. pp. 121-126.

1938

Annett, H. E. 1938. A new ear defect in pigs. J. Hered. 29:469-470.

Bjorka, K. 1938. Shrinkage and dressing yields of hogs. USDA Tech. Bul. 621.

Blunn, C. T. and Hughes, E. N. 1938. Hydrocephalus in swine. J. Hered. 29:203-209.

Craft, W. A. 1938. A survey of livestock breeding and feeding practices. Okla. Agr. Exp. Sta. Cir. 73.

Crampton, E. W. 1938. The progress of swine improvement in Canada. 4. The Analysis and Interpretation of Hog Carcass Data. Sci. Agr. 19(3):155-161.

Donald, H. P. and Fleming, I. 1938. The effect of prenatal weight changes in breeding sows on the number and size of new born pigs. Emp. J. Exp. Agr. 6(24):341-349.

Hetzer, H. O. and Phillips, Ralph W. 1938. A study of two methods for scoring certain characters in swine. Rec. Proc. 31st Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-27, 1938. pp. 141-146.

Hogreve, F. 1938. A new experimental method for determining fat deposition and fat production at different stages of fattening in live pigs of various breeds. (German). Zucht. B. 40:377.

Ittner, N. R. and Hughes, E. H. 1938. A normal growth curve for swine. J. Hered. 29:385-386.

Knox, R.G. 1938. The progress of swine improvement in Canada. 2. Test Station Operation. Sci. Agr. 19(3):143-146.

Lefebvre, J. G. 1938. The progress of swine improvement in Canada. 3. Results of Station Testing in Canada. Sci. Agr. 19(3):147-154.

Lush, Jay L. 1938. A measure of individual net merit for 225-pound pigs. Reg. Swine Breed. Lab. Res. Item 9. Nov. 1, 1938. Ames, Iowa.

Lush, Jay L. 1938. Repeatability of scores made by the same man. Reg. Swine Breed. Lab. Res. Item 6. Apr. 12, 1938. Ames, Iowa.

Lush, Jay L. 1938. Should weight or age be used as an end point for test litters? Reg. Swine Breed. Lab. Res. Item 4. March 9, 1938. Ames, Iowa.

Lush, Jay L. and Craft, W. A. 1938. Further analysis of scores on pigs. Reg. Swine Breed. Lab. Res. Item 7. Apr. 30, 1938. Ames, Iowa.

Lush, Jay L. and Molln, Arthur E. 1938. Comparative influence of each point in determining total score. Reg. Swine Breed. Lab. Res. Item 8. Oct. 25, 1938. Ames, Iowa.



1938

McKenzie, Fred F., Miller, J. C., and Baugus, L. C. 1938. The reproductive organs and semen of the boar. Mo. Agr. Exp. Sta. Res. Bul. 279.

McMeekan, C. P. 1938. Growth and development in the bacon pig. Thesis. Cambridge Univ. Libr.

McMeekan, C. P. 1938. Shape of the growth curve as a controlling factor in conformation and anatomical composition of the animal body - Swine. Rec. Proc. 31st Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-27, 1938. pp. 337-341.

Pearsall, L. W. 1938. The progress of swine improvement in Canada. 6. The Market Quality of Canadian Bacon. Sci. Agr. 19(3):173-176.

Peterson, A. W. 1938. The progress of swine improvement in Canada. 1. Advanced Registry for Purebred Swine. Sci. Agr. 19(3):139-142.

Plum, Mogens. 1938. Inheritance of mammae in swine, a character involving partly symmetrical organs. Hereditas. 24:216-230.

Robison, W. L. 1938. Comparisons of purebred and crossbred pigs at the Madison County, Paulding County, and Miami County Ohio Experiment Farms. Ohio Agr. Exp. Sta. Mimeo. Rept.

Russell, E. Z. and Hutton, R. E. 1938. Comparative value of mature sows and gilts for producing market hogs. USDA Cir. 472.

Stothart, J. G. 1938. The progress of swine improvement in Canada. 5. A Study of Factors Influencing Swine Carcass Measurements. Sci. Agr. 19(3):162-172.

Whatley, J. A., Jr. 1938. Is growth rate in swine hereditary? Reg. Swine Breed. Lab. Res. Item 5. March 24, 1938. Ames, Iowa.

Willham, Oliver S. 1938. Inbred sows vs. inbred boars in outcrosses. Rec. Proc. 31st Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-27, 1938. pp. 304-310.

Winters, L. M. 1938. The relationship of environment to selection. Rec. Proc. 31st Ann. Meet. Amer. Soc. Anim. Prod. Nov. 25-27, 1938. pp. 278-284.

1939

Anon. 1939. The swine-breeding research farm. What it is, its operation, its purposes. Iowa Agr. Exp. Sta. and Bur. of Anim. Ind., USDA, cooperating. (A pamphlet). Apr.

Anon. 1939. Wattled pigs in Panama. J. Hered. 30:216-217.

Baker, Marvel L. 1939. The interrelation of birth weight, weaning weight, weaning score, 180-day weight, and final score in swine. Reg. Swine Breed. Lab. Res. Item 11. Apr. 6, 1939. Ames, Iowa.

Clausen, H. 1939. Progress of Danish pig breeding. Pig Breed. Ann. 1938-39.

Comstock, R. E. 1939. The relationship between weaning weight and post weaning growth rate. Reg. Swine Breed. Lab. Res. Item 12. Apr. 12, 1939. Ames, Iowa.

Comstock, R. E. 1939. A study of the mammalian sperm cell. I. Variations in the glycolytic power of spermatozoa and their relation to motility and its duration. J. Exp. Zool. 81:147.

Craft, W. A. and Lush, Jay L. 1939. Total score as influenced by items classified under description on scoring sheets and by the six items of the score for pigs. Reg. Swine Breed. Lab. Res. Item 13. Apr. 13, 1939, Ames, Iowa.

Crampton, E. W. 1939. Growth and feed consumption of bacon hogs. Sci. Agr. 19(12):736-744.

Crew, F.A.E. and Koller, P. C. 1939. Cytogenetical analyses of the chromosomes in the pig. Proc. Roy. Soc. Edinburgh. 59(16):163-175.

Donald, H. P. 1939. The relative importance of sow and litter during the growth of suckling pigs. A comparison of fostered with normally reared pigs. Emp. J. Exp. Agr. 7(25):32-42.

Fenske, T.H. 1939. A study of body measurements in swine appraisal. M.S. Thesis. Univ. of Minn. Libr. St. Paul.

Ferrin, E. F. 1939. A factual basis for changing swine types. Rec. Proc. 32nd Ann. Meet. Amer. Soc. Anim. Prod. Dec. 1-3, 1939. pp. 125-128.

Ferrin, E. F. 1939. Hog history - especially Berkshires. The Berkshire News.

Fishwick, V. C. 1939. Crossbreeding with pigs. J. Min. Agr. 46:583-587.

Fishwick, V. C. 1939. Crossbreeding with pigs - Rept. No. 1. S.E. Agr. Coll. 44:92-99, Wye, Kent.



1939

Freeman, V. A. 1939. Variation in the numbers of vertebrae in swine. J. Hered. 30:61-64.

Hankins, O. G. and Ellis, N. R. 1939. Fat in relation to quality and quantity factors in meat animal carcasses. Rec. Proc. 32nd Ann. Meet. Amer. Soc. Anim. Prod. Dec. 1-3, 1939. pp. 314-319.

Hetzer, H. O. and Brier, G.W. 1939. Estimates of mean differences necessary for significance between pigs in group feeding experiments. Rec. Proc. 32nd Ann. Meet. Amer. Soc. Anim. Prod. Dec. 1-3, 1939. pp. 157-161.

Hetzer, H. O. and Phillips, Ralph W. 1939. A study of two methods for scoring certain characteristics in swine. Reg. Swine Breed. Lab. Res. Item 10. Jan. 6, 1939. Ames, Iowa.

Hiner, R.L. and Hankins, O. G. 1939. Significance of variation in ham conformation. J. Agr. Res. 59(4):293-302.

Hutton, R. E. and Russell, E. Z. 1939. Production of hogs suitable for Wiltshire sides. USDA Cir. 532.

Jarl, F. 1939. Investigations into factors affecting the quality of pork. (English). Z. Tierzuchtg. Zuchtgbiol. 44(1):48-92.

Johnson, D. W. 1939. Livestock weights from measurements. Minn. Agr. Ext. Div. Ext. Folder 70.

Lush, Jay L. and Anderson, A. L. 1939. A genetic history of Poland-China swine. I. Early breed history. J. Hered. 30:149-156.

Lush, Jay L. and Anderson, A. L. 1939. A genetic history of Poland-China swine. II. Founders of the breed. J. Hered. 30:219-224.

Lush, Jay L., Shearer, P. S., and Culbertson, C. C. 1939. Crossbreeding hogs for pork production. Iowa Agr. Exp. Sta. Bul. 380.

McMeekan, C. P. 1939. The nature and variability of carcass characters of Danish and English bacon pigs. J. Agr. Sci. 29(1):131-141.

McMeekan, C. P. and Hammond, J. 1939. Improvement of carcass quality in pigs. J. Min. Agr. 46(3):238-243.

Nordby, Julius E. 1939. Inequalities in the digits of swine. J. Hered. 30:307-310.

Phillips, Ralph W., Hetzer, H. O., and Hiner, R. L. 1939. Relation of scores of swine to carcass yields and certain carcass measurements. Reg. Swine Breed. Lab. Res. Item 15. Nov. 6, 1939. Ames, Iowa.



1939

Schmidt, J. and Hogreve, F. 1939. Investigations on the body conformation in the pig with special reference to the supporting framework. I. Methods of investigation and investigations on the Edelschwein. Z. Tierz. Zucht. Biol. 44:1-49.

Smith, A.D.B. and Donald, H. P. 1939. Analysis of post-weaning growth in pigs. J. Agr. Sci. 29(2):274-294.

Turner, C. W. 1939. The comparative anatomy of the mammary glands. Chapt. 16. The anatomy of the mammary glands of swine. Univ. Coop. Store, Columbia, Mo.

Whatley, J.A., Jr. 1939. Influence of heredity on rate of gain in Poland-China pigs. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Willham, O. S. and Craft, W. A. 1939. An experimental study of inbreeding and outbreeding swine. Okla. Agr. Exp. Sta. Tech. Bul. 7.

Winters, L.M. 1939. The ideal hog. Reg. Swine Breed. Lab. Res. Item 14. July 10, 1939. Ames, Iowa.

Wright, Sewall. 1939. Genetic principles governing the rate of progress of livestock breeding. Rec. Proc. 32nd Ann. Meet. Amer. Soc. Anim. Prod. Dec. 1-3, 1939. pp. 18-26.

1940

Anon. 1940. Swine breeding in the Corn Belt. J. Hered. 31:207-208.

Berge, S. 1940. Gestation in the pig. (English Summary). Agr. Coll. Norway. Instit. Anim. Breed.-Genetics. Rept. No. 11.

1940

Bogart, R., Weaver, L. A., and Comfort, J. E. 1940. The relation of items in live hog and carcass scores to the total carcass score in swine. Reg. Swine Breed. Lab. Res. Item 19. Nov. 15, 1940. Ames, Iowa.

Bogart, Ralph, Weaver, L. A., and Comfort, J. E. 1940. Carcass studies including scores, measurements, and yields. Reg. Swine Breed. Lab. Res. Item 17. Apr. 12, 1940. Ames, Iowa.

Cameron, H. S., Hughes, E. H., and Gregory, P. W. 1940. Studies on genetic resistance in swine to Brucella infection. Preliminary Rept. The Cornell Vet. 30:218-222.

Crampton, E. W. 1940. Hog carcass studies; effect of early rate of growth on leanness of carcass. Sci. Agr. 20:592-595.

Donald, H. P. 1940. Breeding policy in relation to performance testing of pigs. Emp. J. Expt. Agr. 8(31):185-189.

Donald, H. P. 1940. Growth rate and carcass quality in bacon pigs. A study of polynomial coefficients fitted to growth rate data. J. Agr. Sci. 30:582-597.

Hankins, O. G. 1940. A study of carcass characteristics in relation to type of hog. Rec. Proc. 33rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1940. pp. 284-289.

Headley, F. B. 1940. Purebred and crossbred pigs. Comparison of rate of growth and economy of gains. Univ. of Nebr. Bul. 153.

Hetzer, H. O. and Brier, G. W. 1940. Extent to which type differences among swine affect litter size. Rec. Proc. 33rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1940. pp. 135-138.

Hetzer, H. O., Lambert, W. V., and Zeller, J. H. 1940. Influence of inbreeding and other factors on litter size in Chester White swine. USDA Cir. 570.

Johnson, Leslie. 1940. Streamlined pigs. A new legless mutation. J. Hered. 31:239-242.

Lambert, W. V. 1940. Terminology to describe the progeny from various systems of breeding. Rec. Proc. 33rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1940. p. 378.

Lambert, W. V. and McKenzie, F. F. 1940. Artificial insemination in livestock breeding. USDA Cir. 567.

1940

Lush, Jay L. 1940. Intra-sire correlations or regressions of offspring on dam as a method of estimating heritability of characteristics. Rec. Proc. 33rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1940. pp. 293-301.

Lush, Jay L. 1940. Linebreeding. Iowa Agr. Exp. Sta. Bul. 301.

Lush, Jay L. 1940. Relative importance of dam's productivity, pig's own market score, and pig's own growth rate in selecting young boars and gilts for breeding. Reg. Swine Breed. Lab. Res. Item 18. Sept. 19, 1940. Ames, Iowa.

McMeekan, C. P. 1940. Growth and development in the pig with special reference to carcass quality characters. General. J. Agr. Sci. 30(2):276-291.

McMeekan, C. P. 1940. Growth and development in the pig with special reference to carcass quality characters. I. Age changes in growth and development. J. Agr. Sci. 30(2):292-343.

McMeekan, C. P. 1940. Growth and development in the pig with special reference to carcass quality characters. II. The influence of the plane of nutrition on growth and development. 30(3):387-436.

McMeekan, C. P. 1940. Growth and development in the pig with special reference to carcass quality characters. III. Effect of the plane of nutrition on the form and composition of the bacon pig. J. Agr. Sci. 30(4):511-569.

McMeekan, C. P. 1940. Growth and development in the pig with special reference to carcass quality characters. IV. The use of sample joints and of carcass measurements as indices of the composition of the bacon pig. J. Agr. Sci. 31(1):1-17.

McMeekan, C. P. 1940. Growth and development in the pig with special reference to carcass quality characters. V. The bearing of the main principles emerging upon the many problems of animal production and human development. J. Agr. Sci. 31(1):17-49.

McMeekan, C. P. and Hammond, J. 1940. The relation of environmental conditions to breeding and selection for commercial types in pigs. Emp. J. Expt. Agr. 8(29):6-10.

Molln, Arthur E. 1940. Litter and line differences in some weights and scores of pigs. Rec. Proc. 33rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1940. pp. 132-135.

Pomeroy, R. W. 1940. Review of the N.P.A. bacon carcass competition 1932-37. Pig Breed. Ann. 1939-40. pp. _____.

Reinmiller, Cletus F. 1940. Carcass score as predicted by measurements and observations. Reg. Swine Breed. Lab. Res. Item 16. Jan. 23, 1940. Ames, Iowa.

Russell, E. Z. 1940. Age as a factor in brood sow performance. (Mimeo.) USDA BAI AHD.

Shepherd, G., Beard, F. J., and Erikson, A. 1940. Could hogs be sold by carcass weight and grade in the United States. Iowa Agr. Exp. Sta. Res. Bul. 270.

Walton, A., Edwards, J., and Hammond, J. 1940. Fertility in farm animals. J. Roy. Agr. Soc. Eng. 100(3):1-12.

Winters, L. M. 1940. A record of performance for meat animals. Emp. J. Exp. Agr. 8(32):259-268.

Zeller, J. H. 1940. Swine type as a factor in pork production. Rec. Proc. 33rd Ann. Meet. Amer. Soc. Anim. Prod. Nov. 29-Dec. 1, 1940. pp. 279-283.

1941

Asdell, S. A. and Willman, J. P. 1941. The causes of stillbirth in swine and an attempt to control it. J. Agr. Res. 63(6):345-353.

Berge, S. 1941. The inheritance of paralysed hind legs, scrotal hernia, and atresia ani in pigs. J. Hered. 32:271-274.

Berge, S. 1941. Three hereditary anomalies in pigs. Hereditas. 27:176-192.

Cameron, H. S., Gregory, P. W., and Hughes, E.H. 1941. Studies on genetic resistance in swine to Brucella infection. II. A bacteriological examination of resistant stock. The Cornell Vet. 31:21-34.



1941

Craft, W. A. 1941. Breed building and maintenance. Pol. China J. Aug. pp. 22-27.

Dickerson, G. E. 1941. Experimental design for testing inbred lines of swine. Reg. Swine Breed. Lab. Res. Item 23. Sept. 3, 1941. Ames, Iowa.

Donald, H. P. 1941. Length of life and interval between generations in the Large White breed of pig. Emp. J. Expt. Agr. 9(36):236-247.

Eaton, O. N. 1941. Effect of crossing inbred lines of guinea pigs. USDA Tech. Bul. 765.

Edwards, J., Walton, A., and Hammond, J. 1941. Heredity in farm animals. J. Roy. Agr. Soc. Eng. 101(2):1-16.

Hammond, J., Edwards, J., and Walton, A. 1941. Animal breeding in relation to environmental conditions. J. Roy. Agr. Soc. Eng. 102:156-170.

Hammond, John. 1941. Fertility in mammals and birds. Biological Reviews. 16:165-190.

Hazel, L. N. 1941. Principles of a selection index which involves several characteristics and utilizes information concerning relatives. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Hetzer, H. O. 1941. Market grade as influenced by certain points of conformation and weight. Reg. Swine Breed. Lab. Res. Item 21. Apr. 2, 1941. Ames Iowa.

Hetzer, H. O. 1941. Reproductive efficiency of sows at first service in relation to reproductive efficiency at subsequent services. Reg. Swine Breed. Lab. Res. Item 20. Jan. 2, 1941. Ames, Iowa.

Hiner, R. L. and Hankins, O. G. 1941. Use of the pentrometer for determining the firmness of fatty tissue of hog carcasses. J. Agr. Res. 63:233-240.

Hogan, A. G., Muhrer, M. E., and Bogart, R. 1941. A hemophilia-like disease in swine. Proc. Soc. for Exp. Biol. & Med. 48:217-219.

Lush, Jay L., Shearer, P. S., and Culbertson, C. C. 1941. Crossbreeding hogs? Farm Sci. Reporter. pp. 8-11. Jan.

1941

Nelson, Ronald H. 1941. The influence of heredity on the market score of Duroc Jersey hogs. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Olbrycht, T. M. 1941. Colour variation in Wessex Saddleback pigs and its relation to the conformation and the economic usefulness of the breed. Bul. Natl. Pig Breed. Assn. No. 234. (Anim. Breed. Abs. - 1942).

Olbrycht, T. M. 1941. Statistical analysis of black colour in Wessex Saddleback breed. Ann. Eugenics. 11:80-__.

Phillips, Ralph W. and Zeller, John H. 1941. Some factors affecting fertility in swine. Amer. J. Vet. Res. 2(5):439-442.

Pomeroy, R. W. 1941. The effect of a submaintenance diet on the composition of the pig. J. Agr. Sci. 31(1):50-73.

Roth, S. Y., Mayer, D. T., Bogart, Ralph. 1941. Pregnancy diagnosis in swine by a chemical test. Amer. J. Vet. Res. 2(5):436-438.

Smith, R. O. 1941. Indications of lean content of pork carcasses. M.S. Thesis. Iowa State Coll. Libr. Ames.

Staff, Charles. 1941. A plan for evaluating the feed efficiency of rations for the growth of pigs. Larrowe Milling Co. General Mills, Inc. Detroit. 8 p.

Stonaker, H. H. 1941. Heritability of differences in the type of individual swine as evaluated by scores. M.S. Thesis. Iowa State Coll. Libr. Ames.

Whatley, J. A., Jr. 1941. A study on the repeatability of certain body measurements on the same pig. Reg. Swine Breed. Lab. Res. Item 22. Apr. 25, 1941. Ames, Iowa.

Willham, O. S. and Whatley, J.A., Jr. 1941. The improvement of swine through the use of moderate inbreeding and selection. Okla. Agr. Exp. Sta. Mimeo. Cir. 69.

1942

Anderson, A. L. 1942. For performance record. The Pol. China J. Aug. p. 6.

Baker, M. L. and Reinmiller, C. F. 1942. A study of certain trends in inbred lines of swine. (Abs.) J. Anim. Sci. 1:69.

Bogart, R. and Muhrer, M. E. 1942. The inheritance of a hemophilia-like condition in swine. J. Hered. 33:59-64.

Bogart, R., Muhrer, M. E., and Hogan, A. J. 1942. The physiology and inheritance of a hemophilia-like abnormality in swine. (Abs.) Genetics. 27:133.

Cameron, H. S., Gregory, P. W., and Hughes, G. H. 1942. Genetic resistance to brucellosis in swine. (Abs.) J. Anim. Sci. 1:87-88.

Cameron, H. S., Hughes, E. H., and Gregory, P. W. 1942. Genetic resistance to brucellosis in swine. J. Anim. Sci. 1:106-111.

Carroll, W. E. and Roberts, E. 1942. Crossbreeding in swine. Does it offer an effective method for the improvement of market hogs. Ill. Agr. Exp. Sta. Bul. 489.

Comstock, R. E. and Winters, L. M. 1942. Design of experimental comparisons between lines of breeding in livestock. J. Agr. Res. 64(9):523-532.

Comstock, R. E., Winters, L. M., and Cummings, J. N. 1942. The effect of sex on the development of the pig. III. Differences in growth rate between males and females by lines of breeding. (Abs.) J. Anim. Sci. 1:358.

Comstock, R. E., Winters, L. M., Jordan, P. S., and Kiser, O. M. 1942. Measures of growth rate for use in swine selection. J. Agr. Res. 65(8):379-389.

Craft, W. A. 1942. Must breed better hogs. (Part I). Pol. China J. June. pp. 6-7.

Craft, W. A. 1942. Organization and development of the Regional Swine Breeding Laboratory. (Abs.) J. Anim. Sci. 1:68-69.

Dickerson, G. E. 1942. Experimental design for testing inbred lines of swine. (Abs.) J. Anim. Sci. 1:88.

Dickerson, G. E. 1942. Experimental design for testing inbred lines of swine. J. Anim. Sci. 1:326-341.

Dickerson, G. E. and Hazel, L.N. 1942. Effect of progeny testing on progress from selection within closed herds. (Abs.) J. Anim. Sci. 1:342.



1942

Dickerson, G. E. and Hazel, L. N. 1942. Selection for growth rate and productivity in closed herds. (Abs.) J. Anim. Sci. 1:342.

Donald, H. P. and Auerback, C. 1942. The duration and extent of pedigree breeding in herds of large white pigs as factors in breed improvement. Emp. J. Exp. Agr. 10(40):232-244.

Green, W. W., Rash, J. R., Jr., and Dailey, D. L. 1942. The effect of sex on the development of the pig. II. Studies of sex hormone differences between lines. (Abs.) J. Anim. Sci. 1:89.

Green, W. W., Winters, L. M., Rash, J. R., Jr., and Dailey, D. L. 1942. The effect of sex on the development of the pig. II. Urinary excretion of androgens by boars of different lines of breeding. J. Anim. Sci. 1:111-115.

Hallqvist, C. 1942. The individuality of sows in regard to size of litters. Hereditas 28:127-135.

Hammond, J., Edwards, J., and Walton, A. 1942. Animal breeding in relation to environmental conditions. J. Roy. Soc. England. 102:1-15.

Hazel, L. N., Baker, M. L., and Reinmiller, C. F. 1942. Genetic and environmental correlations between the growth rate of pigs at different ages. (Abs.) J. Anim. Sci. 1:358-359.

Hazel, L. N. and Lush, J. L. 1942. Constructing selecting indexes to make maximum progress. (Abs.) J. Anim. Sci. 1:69-70.

Hazel, L. N. and Lush, J. L. 1942. The efficiency of three methods of selection. J. Hered. 33:393-399.

Hetzer, H. O. 1942. Differences in mothering and nursing ability as a cause of differences in some weights of their pigs. (Abs.) J. Anim. Sci. 1:71.

Hogreve, F. 1938. A new experimental method for determining fat deposition and fat production at different stages of fattening in live pigs of various breeds. (German). Z. Zucht. B 40:377-395.

Hogreve, F. 1942. The relation between body conformation and fat deposition in the pig and also a contribution to the problem of type. (German). Zuchtkunde. 18:11-32.

Lush, Jay L. 1942. Results to be expected from selection on a family basis. (Abs.) J. Anim. Sci. 1:342-343.

Lush, Jay L. and Molln, A. E. 1942. Litter size and weight as permanent characteristics of sows. USDA Tech. Bul. 836.

(

(

(

1942

McPhee, H. C. and Eaton, O. N. 1942. Experimental attempts to modify the sex ratio in rabbits and pigs. (Abs.) J. Anim. Sci. 1:343.

McPhee, H. C. and Eaton, O. N. 1942. Experimental attempts to modify the sex ratio in rabbits and pigs. J. Hered. 33:429-433.

Molln, A. E. 1942. The relation between growth rates, weights, and scores for pigs at market maturity. (Abs.) J. Anim. Sci. 1:359-360.

Molln, A. E. 1942. Relations between scores and growth rate in pigs. Reg. Swine Breed. Lab. Res. Item 24. June 2, 1942. Ames, Iowa.

Pemberton, Rollie. 1942. Lessons from emergency. (This article is Part II of "Must Breed Better Hogs" by W.A.C.). Pol. China J. Dec. pp. 28-29.

Phillips, R. W. and Zeller, J. H. 1942. Sexual development in large and small type Poland China sows. (Abs.) J. Anim. Sci. 1:89-90.

Stonaker, H. H. and Lush, J. L. 1942. Heritability of conformation in Poland China swine as evaluated by scoring. J. Anim. Sci. 1:99-105.

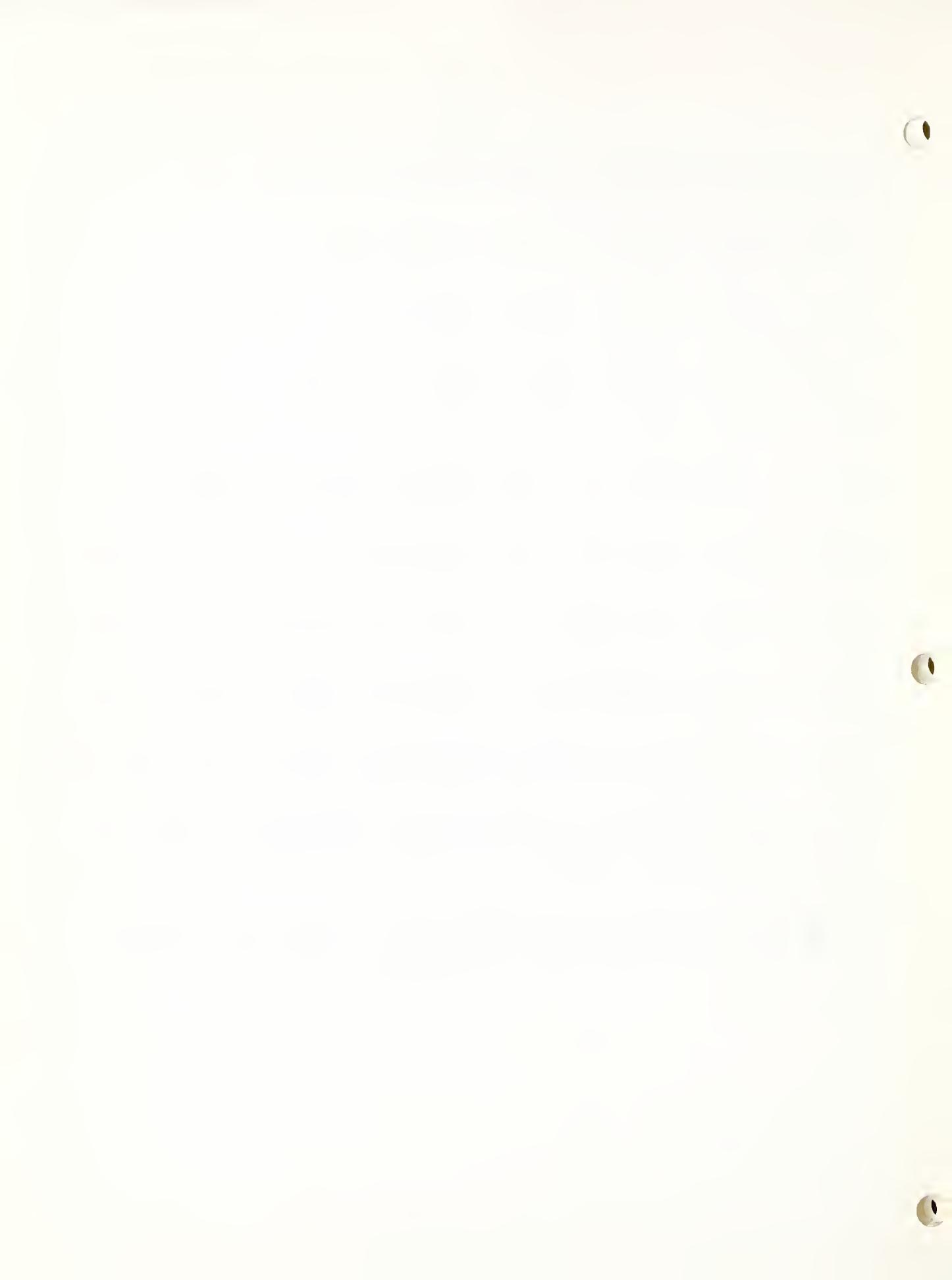
Whatley, J. A., Jr. 1942. Influence of heredity and other factors on 180-day weight in Poland China swine. J. Agr. Res. 65(5):249-264.

Whatley, J. A., Jr. and Nelson, R. H. 1942. Heritability of differences in 180-day weight and market score of Duroc swine. (Abs.) J. Anim. Sci. 1:70.

Winters, L. M., Comstock, R. E., and Dailey, D. L. 1942. The development of an inbred line of swine from a crossbred foundation. (Abs.) J. Anim. Sci. 1:360.

Winters, L. M., Comstock, R. E., Jordan, D. F., and Kiser, O. M. 1942. The effect of sex on the development of the pig. Differences in growth (rate and body measurements) between boars and barrows by lines of breeding. (Abs.) J. Anim. Sci. 1:70-71.

Winters, L. M., Comstock, R. E., Jordan, D. F., and Kiser, O. M. 1942. The effect of sex on the development of the pig. I. Differences in growth between boars and barrows by lines of breeding. J. Anim. Sci. 1:41-47.



1943

Anon. 1943. Crossbred swine. Minn. Agr. Exp. Sta. Bul. 180.

Aubel, C. E. 1943. Swine production in Kansas. Kan. Agr. Exp. Sta. Bul. 314.

Baker, M. L., Hazel, L. N., and Reinmiller, C. F. 1943. The relative importance of heredity and environment in the growth of the pigs at different ages. J. Anim. Sci. 2:3-13.

Bean, H. W. 1943. Single weight versus a three-day average weight for swine. (Abs.) J. Anim. Sci. 2:373.

Bushnell, R. J. 1943. Linked color factors in the Hampshire swine. J. Hered. 34:302-307.

Cameron, H. S., Gregory, P. W., and Hughes, E.H. 1943. Inherited resistance to brucellosis in inbred Berkshire swine. Amer. J. Vet. Res. 4:387-389.

Comstock, R. E., Green, W. W., Winters, L. M., and Nordskog, A. W. 1943. Studies of semen and semen production. Minn. Tech. Bul. 162.

Comstock, R. E., and Winters, L. M. 1943. A comparison of the effects of inbreeding and selection on performance in swine. (Abs.) J. Anim. Sci. 2:356-357.

Craft, W. A. 1943. America's debt to the hog. Duroc News. Oct. pp. 14, 92, 93, 95, 96, 97.

Craft, W. A. 1943. Swine breeding research at the Regional Swine Breeding Laboratory. USDA MP-523.

Dickerson, G. E. 1943. Changes in hog carcasses associated with genetic superiority in economy of gain. (Abs.) J. Anim. Sci. 2:357.

Dickerson, G. E., McClurg, B. R., and Beard, F. J. 1943. Relation between carcass conformation and value of live hogs. (Abs.) J. Anim. Sci. 2:373-374.

Fairbanks, B. W., Roberts, E., and Carroll, W. E. 1943. Breeding for rate of gain with swine. A progress report. (Abs.) J. Anim. Sci. 2:374-375.

Green, W. W., and Winters, L. M. 1943. The effect of sex on the development of the pigs. IV. Histological and endocrinological studies of the boar. (Abs.) J. Anim. Sci. 2:358.

Hankins, O.G. and Ellis, N. R. 1943. The chemical composition and the nutritive value of the dressed carcass and cuts in relation to live weight of hogs. of intermediate type. USDA - AHRD BAI AHD No. 67 (Mimeo). Oct.

Hankins, O. G. and Hiner, R. L. 1943. The physical composition of the dressed carcass and cuts in relation to live weight of the hog of the intermediate type. USDA, ARA, BAI (Mimeo). June.

Hazel, L. N. 1943. The genetic basis for constructing selection indexes. *Genetics*. 28:476-490.

Hazel, L. N., Baker, M. L., and Reinmiller, C. F. 1943. Genetic and environmental correlations between the growth rates of pigs at different ages. *J. Anim. Sci.* 2:118-128.

Hazel, L. N., Reinmiller, C. F., and Baker, M. L. 1943. The relationship between growth rate and carcass measurements in swine. (Abs.) *J. Anim. Sci.* 2:375-376.

Hetzer, H. O. and Zeller, J. H. 1943. Heritability of type in Poland China swine as evaluated by scoring. (Abs.) *J. Anim. Sci.* 2:375.

Kenneth, J. H. 1943. Gestation periods. A table and bibliography. Imperial Bureau Anim. Breed. Genetics. Edinburgh. Oliver and Boyd Ltd. London.

Loeffel, W. J., Derrick, W. W., and Peters, M. 1943. Weight of pigs as it affects gains and carcass qualities. *Nebr. Agr. Exp. Sta. Bul.* 351.

Lush, Jay L. 1943. Animal Breeding Plans. Iowa State Coll. Press, Ames.

Lush, J. L. and Kincaid, C. M. 1943. Adjusting weights of pigs to an age of 154 days. *Reg. Swine Breed. Lab. Res. Item* 25. Apr. 15, 1943. Ames, Iowa.

Mertz, E. T. and Hensel, L. A. 1943. A blood vessel defect in swine suffering from an inherited bleeding disease. *Amer. J. Physiol.* 139:117-122.

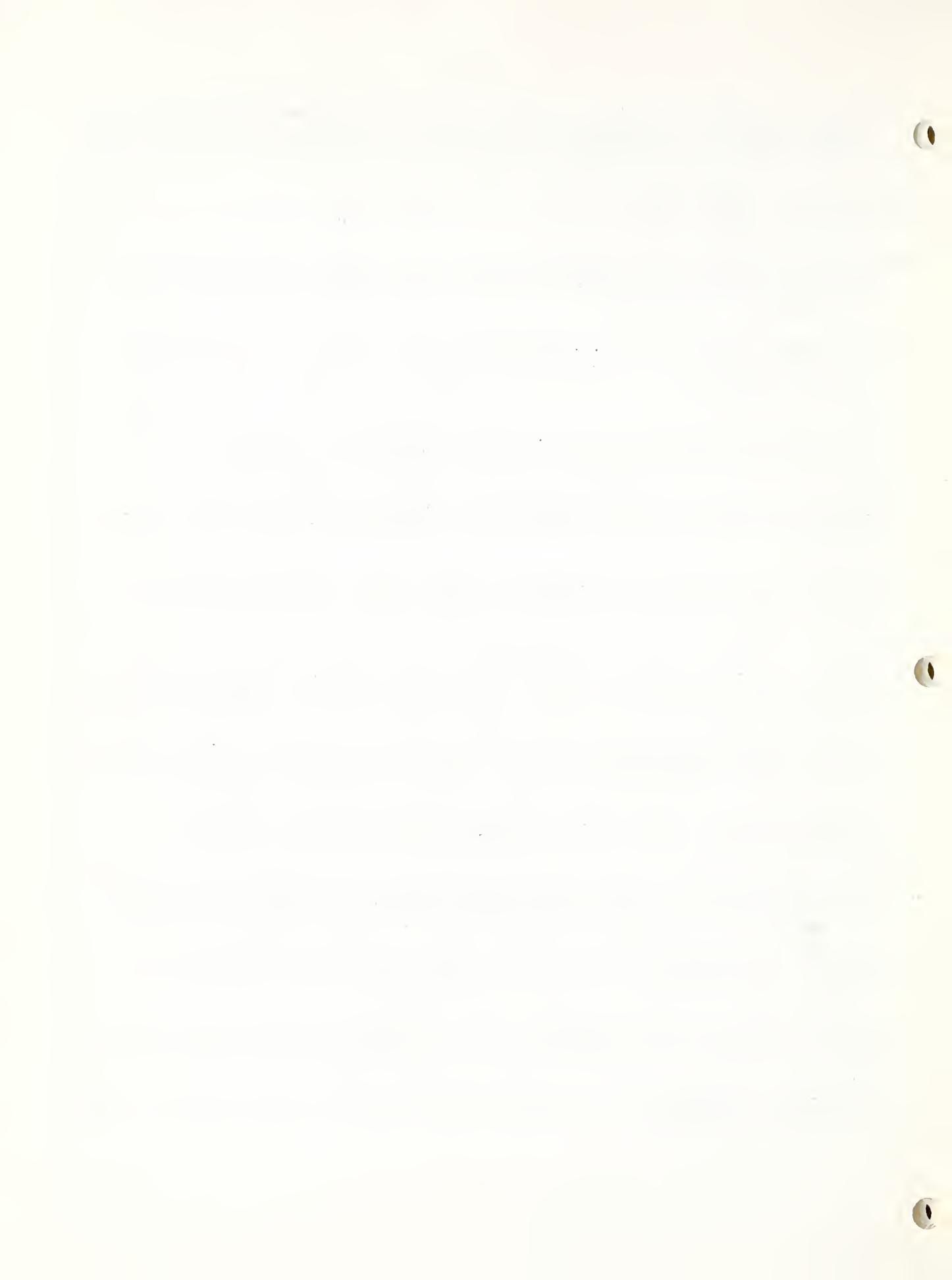
Nordskog, A.W. 1943. A study of factors affecting selection for rate of growth in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Olbrycht, T. M. 1943. The statistical basis of selection in animal husbandry. I. Studies on life performance of brood sows: An analysis of variance and covariance of progeny born and reared. *J. Agr. Sci.* 33(1):28-43.

Phillips, R. W. and Zeller, J.H. 1943. Sexual development in small and large types of swine. *Anat. Rec.* 85(4):387-400.

Tannor, B., Clark, N. G., and Hankins, O. G. 1943. Mechanical determination of the juiciness of meat. *J. Agr. Res.* 66:403-412.

Warwick, E. J., Chapman, A. B., and Ross, O. B. 1943. Some anomalies in pigs. *J. Hered.* 34:349-352.



1943

Weaver, L. A. and Bogart, R. 1943. Some factors influencing efficient production of sows. Mo. Agr. Exp. Sta. Bul. 461.

Willman, J. P. and Krider, J. L. 1943. A study of the characteristics of live market hogs as related to the quality of carcasses produced. J. Anim. Sci. 2:231-236.

Winters, L. M., Comstock, R. E., and Dailey, D. L. 1943. The development of an inbred line of swine (Minn. No. 1) from a crossbred foundation. J. Anim. Sci. 2:129-137.

Winters, L. M., Comstock, R. E., Kiser, O. M., Hodgson, R. E., Jordan, P. S., and Dailey, D. L. 1943. Experiments with inbreeding swine and sheep. Minn. Agr. Exp. Sta. Bul. 364.

Winters, L. M., Kiser, O. M., Jordan, P. S., and Peters, W. H. 1943. You will find greater profits with crossbred swine. (Rev.) Minn. Agr. Exp. Sta. Spec. Bul. 180.



1944

Berge, S. 1944. Genetical researches of the number of vertebrae in the pig. Instit. Anim. Breed. and Genetics, Agric. Coll. Norway. Rept. No. 22(24): 1-68.

Brody, S. and Kibler, H. H. 1944. Growth and development. LIX. Resting energy metabolism and pulmonary ventilation in swine. Mo. Agr. Exp. Sta. Res. Bul. 380.

Comstock, R. E. and Winters, L. M. 1944. A comparison of the effects of inbreeding and selection on performance in swine. J. Anim. Sci. 3:380-389.

Comstock, R. E. and Winters, L. M. 1944. The development of body form in swine. J. Anim. Sci. 3:188-193.

Comstock, R. E., Winters, L. M., and Cummings, J.N. 1944. The effect of sex on the development of the pig. III. Differences in growth rate between gilts and barrows by lines of breeding. J. Anim. Sci. 3:120-128.

Craft, W. A. and Caine, A. B. 1944. Objectively naming purebred animals. Pol. China World. May.

Dickerson, G. E. and Hazel, L. N. 1944. Effectiveness of selection on progeny performance as a supplement to earlier culling in livestock. J. Agr. Res. 69:459-476.

Dickerson, G. E. and Hazel, L. N. 1944. Selection for growth rate of pigs and productivity of sows. J. Anim. Sci. 3:201-212.

Dickerson, G. E., Lush, J. L., and Culbertson, C. C. 1944. Hybrid vigor in first crosses between inbred lines of swine. (Abs.) J. Anim. Sci. 3:454.

Dickerson, G. E., McClurg, B. R., and Beard, F. J. 1944. Relation of carcass conformation to value of live hogs. Reg. Swine Breed. Lab. Res. Item 26. Oct. 31, 1944. Ames, Iowa.

Green, W. W. 1944. Urine excretion by boars. Amer. J. Vet. Res. 5:337-340.

Green, W. W. and Winters, L. M. 1944. Histological studies of boar testes. J. Morph. 75(2):291-301.

Hetzer, H. O., Dickerson, G. E., and Zeller, J. H. 1944. Heritability of type in Poland China swine as evaluated by scoring. J. Anim. Sci. 3:390-398.

Hopper, R. M. 1944. Where do we go from here in pig breeding. CSTA Rev. 43(4):15-19.

Johnson, L. E. 1944. Differences in lengths of gestation periods of breeds of beef cattle, swine, and sheep. S. Dak. Acad. Sci. 24:27-30.

1944

Kieckhefer, E. W. 1944. Hybrid hogs. Reprint from Minneapolis Sunday Tribune. Oct. 8, 1944.

Kieckhefer, E. W. 1944. Minnesota produces better hogs. Reprint from Minneapolis Sunday Tribune. Apr. 23, 1944.

Lasley, J. F. and Bogart, R. 1944. A comparative study of epididymal and ejaculated spermatazoa of the boar. J. Anim. Sci. 3:360-370.

Lerner, I. M. 1944. Lethal and sublethal characters in farm animals. J. Hered. 35:219-224.

Lush, J. L. 1944. Are better hogs coming? Farm Sci. Reporter. 5(2):3-6.

Makino, S. 1944. The chromosome complex of the pig (*Sus scrofa*). Chromosome studies in domestic mammals. III. Cytologia. 13:170-178.

Nordskog, A. W., Comstock, R. E., and Winters, L. M. 1944. The relationship between certain blood components and rate of growth in swine. J. Anim. Sci. 3:422-430.

Nordskog, A. W., Comstock, R. E., and Winters, L. M. 1944. Hereditary and environmental factors affecting growth rate in swine. J. Anim. Sci. 3:257-272.

Olbrycht, T. M. 1944. Behaviour of some external characteristics in Essex pigs. J. Agr. Sci. 34(1):16-21.

Phillips, R. W. and Hsu, T. Y. 1944. Chinese swine and their performance. H. Hered. 35:365-379.

Robison, W. L. 1944. Crossing inbred lines of swine within a breed. (Abs.) J. Anim. Sci. 3:454-455.

Stewart, H. A. 1944. Non genetic factors affecting prolificacy in swine. (Abs.) J. Anim. Sci. 3:455.

Stewart, H. A. 1944. A study of factors affecting selection for fertility in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Weaver, L. A. and Bogart, R. 1944. Variation in efficiency of hogs. Mo. Agr. Exp. Sta. Cir. 290.

1944

Willham, O. S. 1944. Hybrid vigor within a breed. Okla. Agr. Exp. Sta. Mimeo. Cir. 113.

Winters, L. M. 1944. Swine project speeds improvement. Minn. Farm & Home Sci. 1:10-11.

Winters, L. M. and Green, W. W. 1944. A study of the predictive value of scores on body conformation of pigs taken previous to final score. J. Anim. Sci. 3:399-405.

Winters, L. M., Jordan, P. S., Hodgson, R. E., Kiser, O. M., and Green, W. W. 1944. Preliminary report on crossing of inbred lines of swine. J. Anim. Sci. 3:371-379.

Zeller, J. H. and Hetzer, H. O. 1944. Influence of type of hog on production efficiency. USDA Cir. 698.

1945

Atkinson, L. J. 1945. Feed consumption and marketing weight of hogs. USDA Tech. Bul. 894.

Brody, S. 1945. Bioenergetics and Growth. Reinhold Pub. Corp., New York.

Craft, W. A. 1945. Improving farm livestock. Nebr. State Bd. Agr. Ann. Rept. pp. 467-470.

Craft, W. A. 1945. Research in the Regional Swine Breeding Laboratory. Iowa Vet. 16(3): May-June.

Cummings, J. N., Winters, L. M., and Stewart, H. 1945. The heritability of some factors affecting productivity of brood sows. (Abs.) J. Anim. Sci. 5:389.

Dickerson, G. E., and Grimes, J. C. 1945. Effectiveness of selection for efficiency of gain in Duroc Jersey swine. (Abs.) J. Anim. Sci. 5:390.

Elder, C. R. 1945. The inbred boar goes to the farm. Succ. Farm. 43(4): 114, 116-117. Apr.

Green, W. W. and Winters, L. M. 1945. Cleavage and attachment stages in the pig. J. Morph. 78:305.

Green, W. W. and Winters, L. M. 1945. The effect of sex on the development of the pig. IV. Histological and endocrinological studies of the boar. J. Anim. Sci. 4:55-62.

Green, W. W. and Winters, L.M. 1945. Urinary 17-ketosteroid excretion by boars. J. Agr. Res. 71(11):507-517.

Hammond, J. 1945. Problems of pig breeding. Rep. Brit. Soc. Anim. Prod. 4th Meet. pp. 72-83.

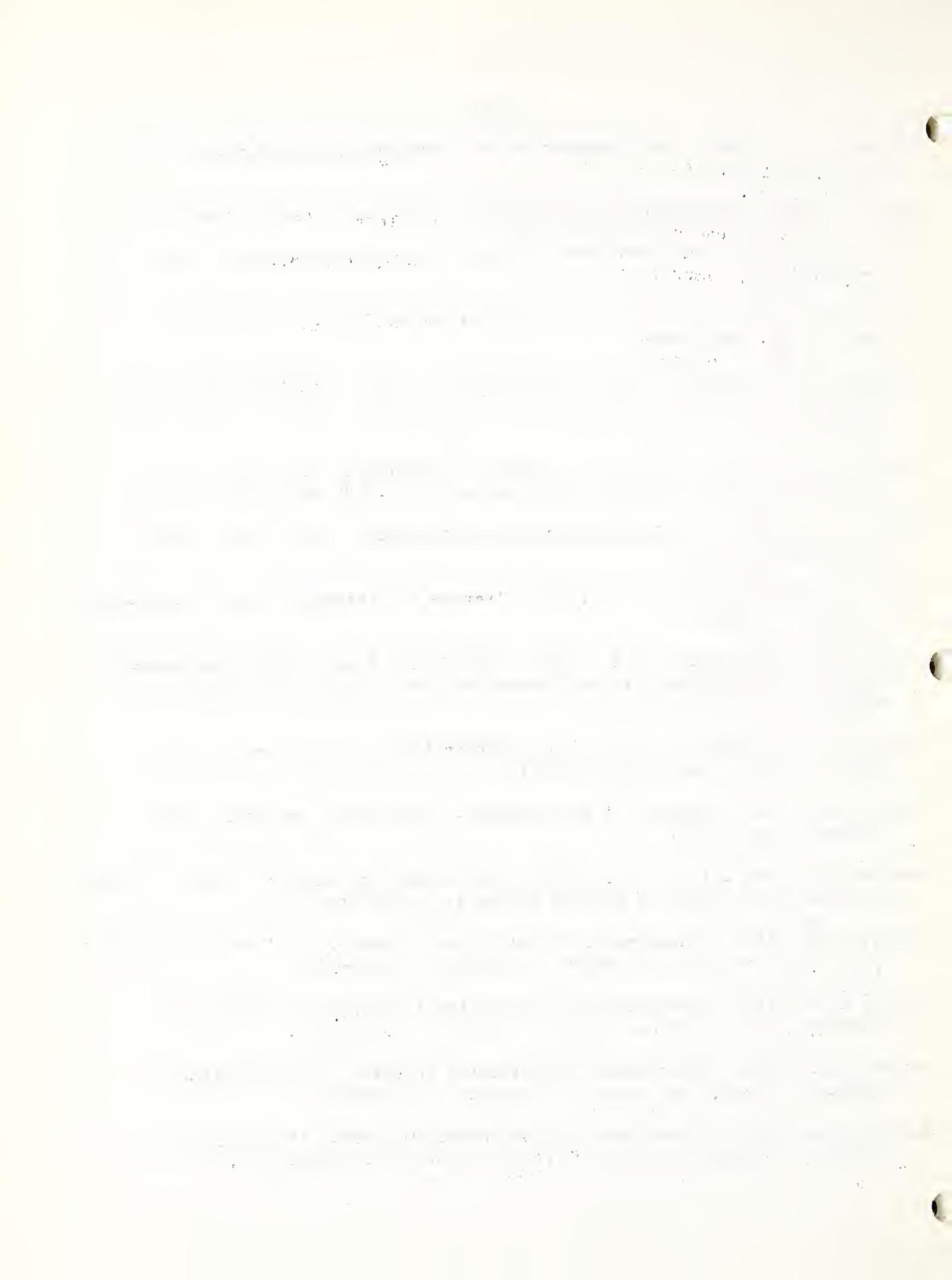
Hankins, O. G. and Ellis, N. R. 1945. Composition and nutritive value of pork as related to weights of animals and cuts. USDA Cir. 731.

Hetzer, H. O. 1945. Inheritance of coat color in swine. I. General survey of major color variations in swine. J. Hered. 36:121-128.

Hetzer, H. O. 1945. Inheritance of coat color in swine. II. Results of Landrace by Poland China crosses. J. Hered. 36:186-192.

Hetzer, H.O. 1945. Inheritance of coat color in swine. III. Results of Landrace by Berkshire crosses. J. Hered. 36:254-256.

Hetzer, H. O. 1945. Inheritance of coat color in swine. IV. Analysis of hybrids of Landrace and Large Black. J. Hered. 36:308-312.



1945

Lacey, J. J., Bohstedt, G., Phillips, P. H., Chapman, A.B., Grummer, R. H., LaRock, M. J., and Whitehair, C. K. 1945. More profit from pigs. Wis. Agr. Ext. Serv. Cir. 355.

Marshall, F.H.A. and Hammond, J. 1945. Fertility and animal breeding. 6th Ed. Min. Agr. Fish. Bul. 39.

McPhee, H. C. 1945. Accomplishments of the Regional Animal Research Laboratories: Invitational paper, Amer. Soc. Anim. Prod., Dec. 1, 1944. (Abs.) J. Anim. Sci. 4:96-97.

Miranda, R. M. 1945. Factors affecting rate of gain and their relation to allotment of pigs for feeding trials. M.S. Thesis. Iowa State Coll. Libr. Ames.

Nordskog, A. W. and Clark, R. T. 1945. Ergotism in pregnant sows, female rats and guinea pigs. Amer. J. Vet. Res. 6(19):107-116.

Phillips, R. W., Johnson, R. G., and Mayer, R. T. 1945. The livestock of China. Swine Dept. of State. Pub. 2249. Far Eastern Series 9. U.S. Govt. Printing Off. Washington. pp. 117-145.

Roberts, E. 1945. Occurrence of red eye in swine. J. Hered. 36:207-208.

Self, H. L. 1945. A comparison of reproductive efficiency of sows at the first and second post lactation heats. (Abs.) J. Anim. Sci. 4:1254-1255.

Stewart, H. A. 1945. An appraisal of factors affecting prolificacy in swine. J. Anim. Sci. 4:250-260.

Stewart, H. A. 1945. The inheritance of prolificacy in swine. J. Anim. Sci. 4:359-366.

Willham, O. S. 1945. Swine improvement through inbreeding and outcrossing. Okla. Agr. Exp. Sta. Mimeo. Cir. 137.



1946

Anon. 1946. Minnesota No. 1 dedicated as new breed of swine. Minn. Farm & Home Sci. 4(1). Oct. 25.

Bean, H. W. 1946. Single weight versus a three-day average weight for swine. J. Anim. Sci. 5:30-35.

Bennett, J. A. and Coles, J.H. 1946. A comparative study of certain performance and carcass characteristics of Yorkshire barrows and gilts. Sci. Agr. 26:265-270.

Berge, S. 1946. Inbreeding in relation to growth and viability in suckling pigs. 33(10).

Dickerson, G. E., Lush, J. L., and Culbertson, C. C. 1946. Hybrid vigor in single crosses between inbred lines of Poland China swine. J. Anim. Sci. 5:16-24.

Green, W. W., Brugman, H. H., and Winters, L. M. 1946. Equipment for raising baby pigs under laboratory conditions. (Abs.) J. Anim. Sci. 5:418.

Green, W. W. and Winters, L. M. 1946. Artificial insemination of farm animals. Minn. Agr. Exp. Sta. Bul. 336.

Green, W. W. and Winters, L. M. 1946. Cleavage and attachment stages of the pig. J. Morph. 78:305-316.

Hanson, L. E. 1946. Some observations on the fertility of boars reared in a restricted environment. J. Anim. Sci. 5:418.

Hazel, L. N. 1946. The covariance analysis of multiple classification tables with unequal subclass numbers. Biometrics Bul. 2(2):21-25.

Hetzer, H. O. 1946. Inheritance of coat color in swine. V. Results of Landrace by Duroc-Jersey crosses. J. Hered. 37:216-224.

Kelley, R. B. 1946. Principles and methods of animal breeding. John Wiley & Sons, Inc. N.Y.

Kincaid, Charles Morrison. 1946. The effect of inbreeding on fertility and vitality in swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Krider, J. L., Fairbanks, B. W., Carroll, W. E., and Roberts, E. 1946. Effectiveness of selecting for rapid or slow rate of growth in two lines in Hampshire swine. J. Anim. Sci. 5:3-15.

Lush, J. L. 1946. Chance as a cause of change in gene frequency in the pure breeds of livestock. Amer. Naturalist. 80:318-342.



Lush, J. L. 1946. Out on first record? Iowa Farm Sci. pp. 6-7. Jan.

Makino, S. 1946. On the karyological relationship of the domestic pig and the Japanese wild pig. Kromosome 1:12-17. (Anim. Breed. Abs. No. 541, 17:148.)

Miranda, R. M., Culbertson, C. C., and Lush, J. L. 1946. Factors affecting rate of gain and their relation to allotment of pigs for feeding trials. J. Anim. Sci. 5:243-250.

Montgomery, G. A. 1946. An efficiency test for hogs. Capper's Farmer. Dec. pp. 28, 71.

Musson, A.L. 1946. The influence of the boar on litter size. (Abs.) J. Anim. Sci. 5:418-419.

Parsons, F. L. 1946. State University develops new hog breed. Monthly Review, Fed. Res. Bank of Minn. 8(58). Oct. 31.

Robison, W. L. 1946. Crossbreeding for the production of market hogs. Ohio Agr. Exp. Sta. Bimonth. Bul. 31(242):143-152. Sept.-Oct.

Robison, W. L. 1946. The influence of the rate of fat deposition on the firmness of the fat of hogs. Ohio Agr. Exp. Sta. Bul. 664.

Robison, W. L. 1946. Procedure for improvement through breeding and selection. Duroc News. pp. 34, 218-223. July.

Whatley, J. A., Jr. 1946. Linebreeding. Okla. Agr. Exp. Sta. Bul. 296:15-21.

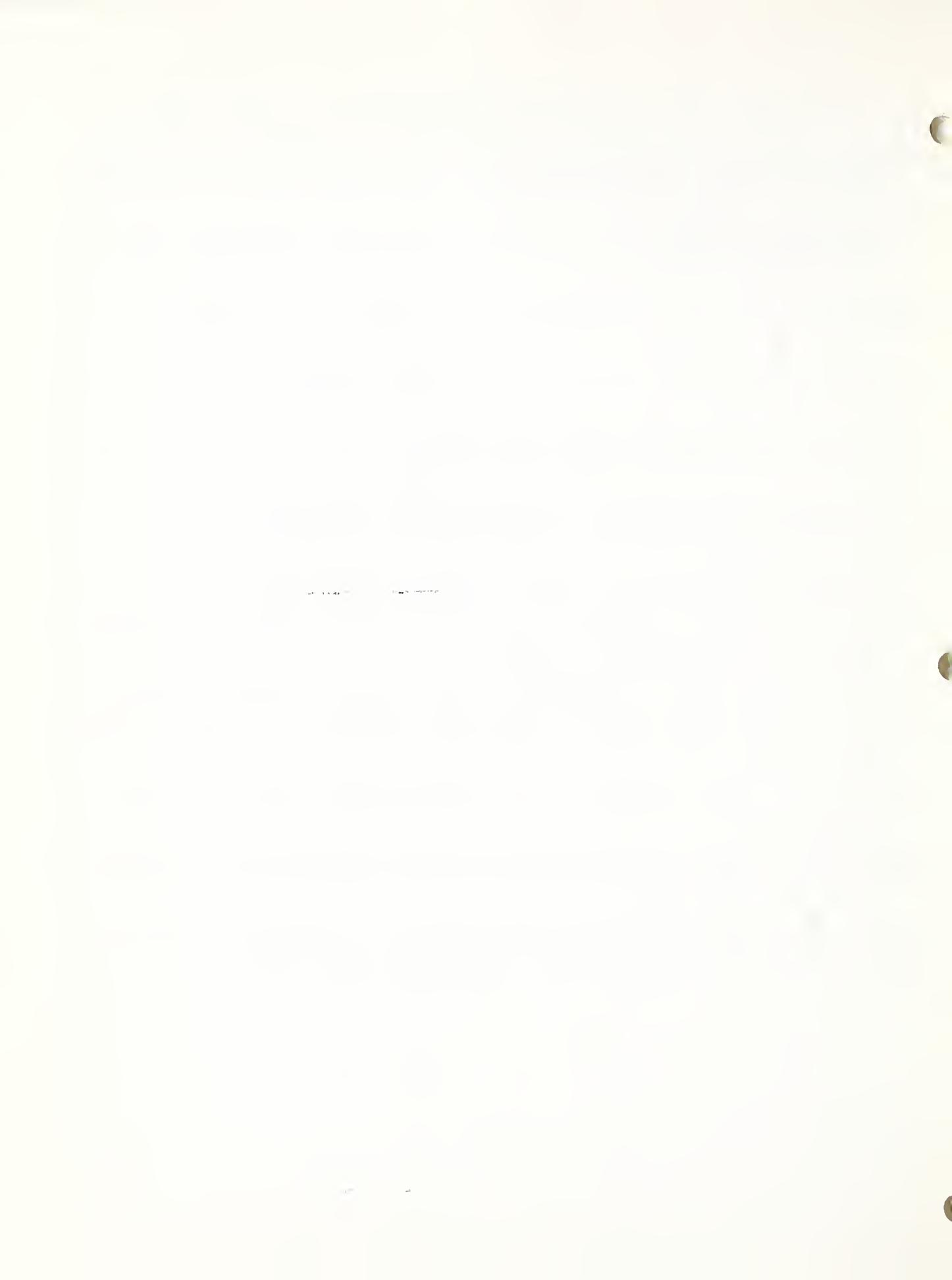
Whatley, J. A., Jr. 1946. When is linebreeding effective. Amer. Hamp. Herdsman. Sept. p. 66.

Winters, L. M. 1946, The Minnesota No. 2 line of swine. Amer. Feed & Grain Dealer. Aug.

Winters, L. M. 1946. Nine years of swine breeding bring results. Minn. Farm & Home Sci. 3(2). Feb.

Winters, L. M. 1946. Swine breeding at Minnesota. Hoard's Dairyman. June 25.

Zeller, J. H. 1946. Breeds of swine. USDA Farmers' Bul. 1263 (rev.)



1947

Aunan, W.J. 1947. Variation of muscle, fat and bone in swine carcasses. M.S. Thesis. Univ. of Minn. Libr. St. Paul.

Blunn, C. T. and Baker, M. L. 1947. Heritability estimates of sow productivity and litter performance. (Abs.) J. Anim. Sci. 6:476.

Blunn, C. T. and Baker, M. L. 1947. The relation between average daily gain and some carcass measurements. J. Anim. Sci. 6:424-431.

Brandon, Manual Carren, Jr. 1947. The use of a score card for appraising the conformation of the live hog. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Brugman, H. H. 1947. An analysis of the breeding methods employed in the development of the Minnesota No. 1 inbred line of swine at the Minnesota North Central Experiment Station. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Callow, E.H. 1947. Comparative studies of meats. I. The chemical composition of fatty and muscular tissues in relation to growth and fattening. J. Agr. Sci. 37:113-131.

Carroll, W. E. and Roberts, E. 1947. Hybrid hogs? There is no such animal. Duroc News. Feb. pp. 20, 107-114.

Craft, W. A. 1947. Research in hog breeding and market type. Meat. 27(4): 171-173. Sept.

Craft, W. A. 1947. The truth about "inbred hogs". Hog Breeder. 22:10, 11, 84. Apr.

Craft, W.A. 1947. U.S.D.A. research work to improve market types of livestock. Natl. Prov., Sept. 13. p. 15.

Cummings, L. N., Winters, L. M., and Stewart, H. A. 1947. The heritability of some factors affecting productivity of brood sows. J. Anim. Sci. 6:297-304.

Dickerson, G. E. 1947. Composition of hog carcasses as influenced by heritable differences in rate and economy of gain. Iowa Agr. Exp. Sta. Res. Bul. 354.

Dickerson, G. E. and Gowen, J. W. 1947. Hereditary obesity and efficient food utilization in mice. Sci. 105:496-498.

Dickerson, G. E. and Grimes, J. C. 1947. Effectiveness of selection for efficiency of gain in Duroc swine. J. Anim. Sci. 6:265-287.



Dickerson, G. E., Lush, J. L., Baker, M. L., Whatley, J. A., and Winters, L. M. 1947. Performance of inbred lines and line crosses in swine. (Abs.) J. Anim. Sci. 6:477.

Fraser, E. B. and Stothart, J. S. 1947. Testing Swedish Landrace in Canada. Dominion of Canada Pub. 801, Tech. Bul. 64.

Green, W. W., Brugman, H. H., and Winters, L. M. 1947. Artificial rearing of baby pigs. J. Anim. Sci. 6:146-153.

Hammond, J. 1947. Animal breeding in relation to nutrition and environmental conditions. Biol. Rev. 22:195-213.

Hammond, J. 1947. Hereditary factors in pigs. Pig Breed. Gaz. No. 53, 4 p.

Hetzer, H. O. 1947. Inheritance of coat color in swine. VI. Results of Yorkshire by Duroc-Jersey crosses. J. Hered. 38:120-124.

Hunt, W. J. 1947. And now the Hampshire hog. Succ. Farming. Jan. p. 107.

Korkman, N. 1947. Causes of variation in the size and weight of litters from sows. Acta. Agr. suec. 2(3):253-310.

Laben, Robert C. 1947. The amount and effectiveness of selection in inbred lines of swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Laben, R. C. and Whatley, J. A., Jr. 1947. Selection in an inbred line of Duroc swine. (Abs.) J. Anim. Sci. 6:478.

Lush, J. L. 1947. Family merit and individual merit as bases for selection. I. Amer. Naturalist. 81:241-261.

Lush, J. L. 1947. Family merit and individual merit as bases for selection. II. Amer. Naturalist. 81:362-379.

Moxley, H. F., Blank, G., and McMillen, W. N. 1947. Michigan sow testing and swine feeding projects. (Abs.) J. Anim. Sci. 6:481.

Powell, Marvin Bass. 1947. The effect of inbreeding on the litter size of swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Stothart, J. G. 1947. A study of parental-progeny correlations with Canadian bacon hogs. Sci. Agr. 27(8):354-363.

Whatley, J. A. 1947. The effect of inbreeding of the litter on the production performance of sows. (Abs.) Proc. 44th Ann. Conv. So. Agr. Workers Assn.



1947

Whatley, J. A. 1947. Litter testing for rate and economy of gain. Okla. Agr. Exp. Sta. MP-11:18-22.

Winters, L. M., Cummings, J. N., and Stewart, H. A. 1947. A study of factors affecting survival from birth to weaning and total weaning weight of the litter in swine. J. Anim. Sci. 6:288-296.

1948

Berge, S. 1948. Genetical researches on the number of vertebrae in the pig. J. Anim. Sci. 7:233-238.

Brugman, H. H. 1948. A genealogy study of the Minnesota No. 1 line. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Callow, E. H. 1948. Comparative studies of meats. The changes in the carcass during growth and fattening and their relation to the chemical composition of the fatty and muscular tissues. J. Agr. Sci. 38(2):174-199.

Comstock, R. E., Peterson, W. J., and Stewart, H. A. 1948. An application of the balanced lattice design in a feeding trial with swine. J. Anim. Sci. 7:320-331.

Comstock, R. E. and Robison, H. F. 1948. The components of genetic variance in populations of biparental progenies and their use in estimating the average degree of dominance. Biometrics. 4:254-266.

Craft, W. A. 1948. Progressive swine breeding. (Mimeo). Univ. of Ill. Ext. Serv. Anim. Sci. AS-13. (Ill. Swine Growers' Day, Apr. 8, 1948).

Cummings, J. N. 1948. A study of factors related to carcass. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Donald, H. P. 1948. Inbreeding as an alternative to outbreeding. J. Roy. Agr. Soc. England. 109:166-174.

England, Milton W. 1948. Effectiveness of selection for litter size and mammae number in an outbred herd of swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Ensminger, M. E., Brugman, H. H., and Johnson, R. F. 1948. Production of a bacon type hog suitable to the feed and climatic conditions of the Pacific Northwest. (Abs.) J. Anim. Sci. 7:511.

Hauser, E. R. and Dickerson, G. E. 1948. Some strain and inbreeding differences in gross testicular development of swine. (Abs.) J. Anim. Sci. 7:512.

Hazel, L.N. and Lush, J. L. 1948. Inbreeding hogs. Iowa Farm Sci. 10:3-6.

Hazel, L. N., Musson, A. L., and Lush, J. L. 1948. Comparisons of inbred Poland China, Landrace and purebred boars on Iowa farms. (Abs.) J. Anim. Sci. 7:512-513.

Henderson, C. R. 1948. Estimation of general, specific, and maternal combining abilities in crosses among inbred lines of swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

60

60

60

1948

Hetzer, H.O. 1948. Inheritance of coat color in swine. VII. Results of Landrace by Hampshire crosses. *J. Hered.* 39:122-218.

Hetzer, H. O., Hankins, O. G., King, J. X., and Zeller, J. H. 1948. Relationship between certain body measurements and yield of 5 preferred cuts in swine. (Abs.) *J. Anim. Sci.* 7:513.

Hutton, R. E., Quesenberry, J. R., Zeller, J. H., and Davis, R. L. 1948. The Hamprace hog. *Mont. Agr. Exp. Sta. Bul.* 454.

James, Wesley E. 1948. A comparison of carcasses of pigs from different lines of breeding. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Kottman, R. M. 1948. The incidence and embryological development of inverted nipples in swine. M.S. Thesis. Univ. of Wis. Libr. Madison.

Kottman, R.M., Lush, J. L., and Hazel, L. N. 1948. Selection in inbred lines of swine. (Abs.) *J. Anim. Sci.* 7:513-514.

Kyle, W. H. and Chapman, A. B. 1948. Experimental check of the effectiveness of selection for a quantitative character. (Abs.) *J. Anim. Sci.* 7:514.

Larson, Eldon. 1948. Feeding tests with inbred lines and line crosses of swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Lush, J. L. 1948. The genetics of populations. Mimeo. 381 p.

Lush, J. L., Culbertson, C. C., Craft, W. A., Shearer, P. S., and Hazel, L. N. 1948. History of swine breeding research at the Iowa Station. *Iowa Agr. Exp. Sta. Rept. on Agr. Res. Year End.* June 30, 1948. pp. 17-32.

Magee, William T. 1948. Inheritance of scrotal hernia in inbred swine. M.S. Thesis. Iowa State Coll. Libr. Ames.

Roberts, L. D. 1948. Microphthalmia in swine. *J. Hered.* 39:146-148.

Robison, W. L. 1948. Crossbreeding for the production of market hogs. *Ohio Agr. Exp. Sta. Bul.* 675.

Sierk, C. F. 1948. A study of heterosis in swine. (Abs.) *J. Anim. Sci.* 7:715.

Sierk, Carl Frederick. 1948. A study of heterosis in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Smith, Martin Cleoh. 1948. Study of the amount and intensity of selection practiced in an inbred line of swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.



1948

Stewart, H. A. and Comstock, R.E. 1948. A comparison of inbred lines of swine based on their performance in topcrosses. (Abs.) J. Anim. Sci. 7:515-516.

Stringman, E. V. 1948. An analysis of breeding methods employed in the development of the Poland China herd of swine at the Minnesota West Central Experiment Station. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Vernon, E. H. 1948. Sex ratios among inbred, non-inbred, and linecross pigs. (Abs.) J. Anim. Sci. 7:516-517.

Vernon, Eugene H. 1948. Sex ratios among inbred, non-inbred, and linecross pigs. M.S. Thesis. Iowa State Coll. Libr. Ames.

Warnick, A. C., Grummer, R. H., and Casida, L. E. 1948. The nature of reproductive failures in sows of low fertility. (Abs.) J. Anim. Sci. 7:545.

Whatley, J. A. 1948. Feeding tests with inbred lines and line crosses in swine. Okla. Agr. Exp. Sta. MP-13:34-36.

Whatley, J. A. and Wiggins, E. L. 1948. The effect of feeding method on inter-lot variation in feed lot performance of swine. (Abs.) Proc. 45th Ann. Conv. So. Agr. Workers Assn.

Wiggins, E. L., Casida, L. E., and Grummer, R. H. 1948. The incidence of female genital abnormalities in swine. (Abs.) J. Anim. Sci. 7:545.

Wiggins, Earl L. 1948. The effect of method of feeding on inter-lot variation of feed lot performance of swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

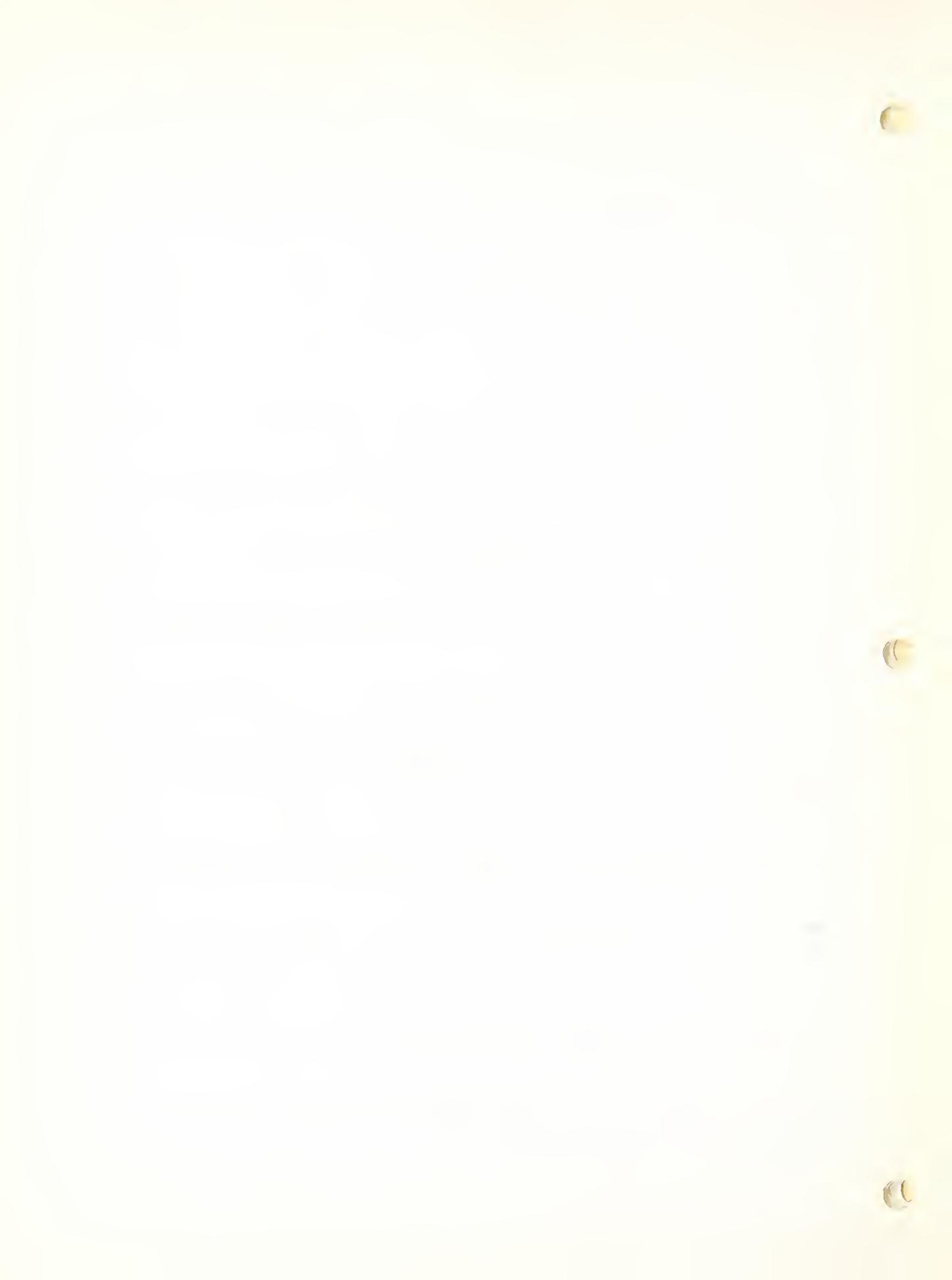
Wilson, R. F., Nalbandov, A. V., and Krider, J. L. 1948. Reproductive abnormalities of females from selected and unselected populations of swine. (Abs.) J. Anim. Sci. 7:546.

Winters, L. M. 1948. Animal breeding. 4th ed. John Wiley and Sons, Inc. N.Y.

Winters, L. M. 1948. The famous Minnesota hogs. The Westerner. pp. 16, 17, 37, 40, and 41.

Winters, L. M. 1948. Minnesota swine breeding project develops new lines. Minn. Farm & Home Sci. 5(3):2, 3, 11.

Winters, L. M., Dailey, D. L., Jordan, P. S., Kiser, O. M., Hodgson, R. E., Cummings, J. N., and Sierk, C. F. 1948. Experiments with inbreeding swine. Minn. Agr. Exp. Sta. Bul. 400.



1949

Andrews, F. N. and Warwick, E. J. 1949. Comparative testicular development of some inbred, purebred, crossbred and linecross boars. (Abs.) J. Anim. Sci. 8:603.

Arthaud, Raymond L. 1949. Influence of some factors on gestation length of inbred swine. M.S. Thesis. Univ. of Nebr. Libr. Lincoln.

Aunan, W.J. and Winters, L. M. 1949. A study of the variations of muscle, fat, and bone of swine carcasses. J. Anim. Sci. 8:182-190.

Blunn, C. T. and Baker, M. L. 1949. Heritability estimates of sow productivity and litter performance. J. Anim. Sci. 8:89-97.

Brown, C. J., Hillier, J. C., and Whatley, J. A. 1949. The relationship between specific gravity and certain physical characteristics of the pork carcasses. (Abs.) J. Anim. Sci. 8:612.

Brugman, H. H., Winters, L. M., and Dailey, D. L. 1949. A geneology study of the Minnesota No. 1 hog. Minn. Agr. Exp. Sta. Tech. Bul. 184.

Bruner, D. W., Brown, R. G., Hull, F. E., and Kinkaid, A. S. 1949. Blood factors and baby pig anemia. J. Amer. Vet. Med. Assn. 115:94-96.

Cartright, T. and Shrode, R. R. 1949. Studies on the inheritance of color markings in Hampshire swine. (Abs.) J. Anim. Sci. 8:603.

Comstock, R. E., Robinson, H. F., and Harvey, P. H. 1949. A breeding procedure designed to make maximum use of both general and specific combining ability. Agron. J. 41(7):360-367.

Dabczewski, Z. 1949. Studies on a teratological form of the newly born Pulawska (Golebska) swine. Bulletin de l'Acad. des Sciences 1949. Ser. BII:241-260.

Dickerson, G. E. 1949. The importance of heterosis for total performance in animals. (Abs. 560). Proc. Eighth Internat'l. Cong. Genetics. Hereditas, Suppl. Vol. 1949.

Dickerson, G. E. 1949. Use of inbred strains for improving swine production. Third Ann. Fall Livestock Day, Oct. 28, 1949. Univ. of Mo., Columbia. pp. 3-6.

Donald, H. P. 1949. The inheritance of a tail abnormality associated with urogenital disorders in pigs. J. Agr. Sci. 39(2):164-173.

Durham, R.M. 1949. Inbred and linecross boars versus non-inbred and non-linecross boars used in two-sire herds on Wisconsin farms. M.S. Thesis. Univ. of Wis. Libr. Madison.



Durham, R. M., Chapman, A. B., and Grummer, R. H. 1949. Inbred and linecross boars versus non-inbred and non-linecross boars used in two-sire herds on Wisconsin farms. (Abs.) J. Anim. Sci. 8:605.

Felts, L. L. 1949. Comparison of selection indexes in swine. M.S. Thesis. Univ. of Wis. Libr. Madison.

Hauser, E. R., Squiers, C. D., Dickerson, G. E., and Mayer, D. T. 1949. Inbreeding and strain differences in reproductive performance of boars. (Abs.) J. Anim. Sci. 8:640.

Hazel, L. N. 1949. Problems, techniques, and experimental designs in animal investigations. Breeding and Genetics. (Abs.) J. Anim. Sci. 8:610-611.

Henderson, C. R. 1949. Estimation of general, specific, and maternal combining abilities in crosses among inbred lines of swine. (Abs.) J. Anim. Sci. 8:606.

Hiner, R. L. 1949. Standard method of cutting pork carcasses for determining the yield and percentage of wholesale cuts. Recip. Meats Conf. Proc. 2:123-131.

Johansson, I. 1949. Length of generation interval in Swedish farm animals. (English Summary). Sartryck ur Kungl. Lantbruksakademiens Tidskrift Arg. 88:1949.

Lush, J. L. 1949. Heritability of quantitative characters in farm animals. Proc. Eighth Internat'l. Cong. Genetics. Hereditas, Suppl. Vol. 1949. pp. 356-375.

Lush, J. L. 1949. Reasonably possible rates of improving livestock by breeding. U.N. Scient. Conf. on Conservation and Utilization of Resources.

McCarty, J. W. 1949. Breeding better pigs. So. Dak. Agr. Exp. Sta. 63rd Ann. Rept. pp. 5-6.

Moxley, H. F. and McMillen, W. N. 1949. Four years of sow testing in Michigan. Mich. Agr. Exp. Sta. Quart. Bul. 31(4):392-394.

Musson, A. L. 1949. Slide rule for calculating the length of gestation. J. Anim. Sci. 8:470-471.

Roberts, E. and Krider, J. L. 1949. Inheritance of red-eye in swine. J. Hered. 40:306.

Rottensten, K. 1949. Progeny testing stations and livestock improvement. The conservation and utilization of resources. U.N. Sci. Conf. Apr. 26, 1949. Land Resources 11(a) Livestock Breeding.



1949

Roubicek, C. B. 1949. An analysis of the breeding methods employed in the development of the Minnesota No. 2 herd of swine at the Minnesota Northeast Experiment Station. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Shrode, R. R. 1949. Three-week and eight-week weights of litters as bases for predicting future productivity of sows. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Squiers, C. D. 1949. Factors influencing fertility of sows. Third Ann. Livestock Day, Univ. of Mo. Oct. 28, 1949. pp. 6-7.

Squiers, C. D., Hauser, E. R., Dickerson, G. E., and Mayer, D. T. 1949. Inbreeding and strain influences on components of fertility in sows. (Abs.) J. Anim. Sci. 8:644-645.

Warnick, A. C., Grummer, R. H., and Casida, L. E. 1949. The nature of reproductive failures in repeat breeder sows. J. Anim. Sci. 8:569-577.

Warnick, A. C., Wiggins, E. L., Casida, L. E., Grummer, R. H., and Chapman, A. B. 1949. The age of puberty in a herd of inbred swine. (Abs.) J. Anim. Sci. 8:646.

Warwick, E. J. and Wiley, J. R. 1949. Growth rates of some inbred, purebred, crossbred, and crossline pigs. (Abs.) J. Anim. Sci. 8:610.

Warwick, E. J. and Wiley, J. R. 1949. Progress report on the development of inbred lines in swine and their uses in crosses. Purdue Univ. Agr. Exp. Sta. Cir. 362.

Whatley, J. A., Jr. 1949. Breeding livestock for more efficient production. Okla. Agr. Exp. Sta. MP-15:25-32.

Wilson, R. F. 1949. A study of reduced fertility in female swine. Ph.D. Thesis. Univ. of Ill. Libr. Urbana.

Wilson, R. F., Nalbandov, A. V., and Krider, J. L. 1949. The reproductive performance of two selected lines of Hampshires. (Abs.) J. Anim. Sci. 8:647.

Wilson, R. F., Nalbandov, A. V., and Krider, J. L. 1949. A study of impaired fertility in female swine. J. Anim. Sci. 8:558-568.

Winters, L. M. 1949. Scientific processes for the improvement of farm animals. The Scientific Monthly. 69(3). Sept. pp. 197-200.



1949

Winters, L. M., Sierk, C. F., and Cummings, J. N. 1949. The effect of plane of nutrition on the economy of production and carcass quality of swine. J. Anim. Sci. 8:132-140.

Zeller, J. H. 1949. Better type hog achieved by U.S.D.A. breeding study. Natl. Prov. 121(14):124-126, 128-129.

1950

Bernard, C. S., Trimble, K. T., Chapman, A. B., and Williams, D. H. 1950. Study of the use and effectiveness of a swine selection index on Wisconsin farms. (Abs.) J. Anim. Sci. 9:634-635.

Blomut, W. P. 1950. Rib counts on pigs of British breeds and their familial inheritance. Brit. Vet. J. 106:420-422.

Boulware, Ralph. 1950. The effect of sire on inbred and linecross pig weights. M.S. Thesis. Univ. of Nebr. Libr. Lincoln.

Brugman, H. H. 1950. The effect of plane of nutrition on the carcass quality of swine based on a Chester-White and Danish Landrace cross. J. Anim. Sci. 9:602-607.

Callow, E. H. 1950. Comparative studies of meats in relation to the deposition of fat and protein in the fatty muscular tissues of meat carcasses. IV. Rate of fattening. J. Agr. Sci. 40:1-8.

Chambers, Doyle. 1950. Heterosis expressed by crosses among inbred lines within the Duroc breed of swine. Ph.D. Thesis. Okla. State Univ. Libr. Stillwater.

Chambers, Doyle and Whatley, J. A., Jr. 1950. Heterosis in crosses of inbred lines of Duroc swine. (Abs.) J. Anim. Sci. 9:635-636.

Eaton, O. N., Neville, W. E., and Dickerson, G. E. 1950. General and specific combining abilities in mouse crosses. (Abs.) J. Anim. Sci. 9:636-637.

Engelmann, G., Dowell, A. A., Ferrin, E. F., and Anderson, P.A. 1950. Marketing slaughter hogs by carcass weight and grade. Minn. Agr. Exp. Sta. Tech. Bul. 187.

Ensminger, M. E., Brugman, H. H., and Warwick, E. J. 1950. A preliminary genealogy and carcass study of the W.S.C. Project No. 61 bacon-type hog. Wash. Agr. Exp. Sta. Tech. Bul. 1.

Fausch, H. D. 1950. A study of the relationship between inbreeding and variability in the Minnesota No. 2 swine. M.S. Thesis. Univ. of Minn. Libr. St. Paul.

Gregory, K. E. and Dickerson, G. E. 1950. Influence of inbreeding and plane of nutrition on rate and economy of gains, digestion and carcass composition of pigs. (Abs.) J. Anim. Sci. 9:637.

Hagedoorn, A. L. 1950. Animal breeding. 4th ed. Crosley Lockwood and Son, Ltd. London.



1950

Hammond, J. 1950. Measuring growth in farm animals. Measurement of growth and form. Proc. Roy. Soc. England. B 137:452-461.

Hammond, J. 1950. Pig breeding. Pig Breed. Gaz. No. 61, Apr.

Hazel, L. N. 1950. Problems, techniques, and experimental designs in animal investigations. Animal Breeding. J. Anim. Sci. 9:475-483.

Hazel, L. N. and Lush, J. L. 1950. Computing inbreeding and relationship coefficients from punched cards. J. Hered. 41:301-306.

Hetzer, H. O., Hankins, O. G., King, J. X., and Zeller, J. H. 1950. Relationships between certain body measurements and carcass characteristics in swine. J. Anim. Sci. 9:37-47.

Hetzer, H. O., Hankins, O. G., and Zeller, J. H. 1950. Performance of crosses between 6 inbred lines of swine. (Abs.) J. Anim. Sci. 9:638.

Johansson, I. and Korkman, N. 1950. A study of the variation in production traits of bacon pigs. Acta Agric. Scand. 1(1):62-96.

Kershaw, G. F. 1950. Notes on deaths in young piglets similar to the haemolytic disease in young foals. Vet. Rec. 62:383-__.

Lerner, I. M. 1950. Population Genetics and Animal Improvement. Cambridge.

McCarty, J. W., Johnson, L. E., and Wright, T. 1950. Adjusting weights of pigs to standard ages of 21, 56, 77, 154, and 180 days. Proc. So. Dak. Acad. Sci. 29:128-134.

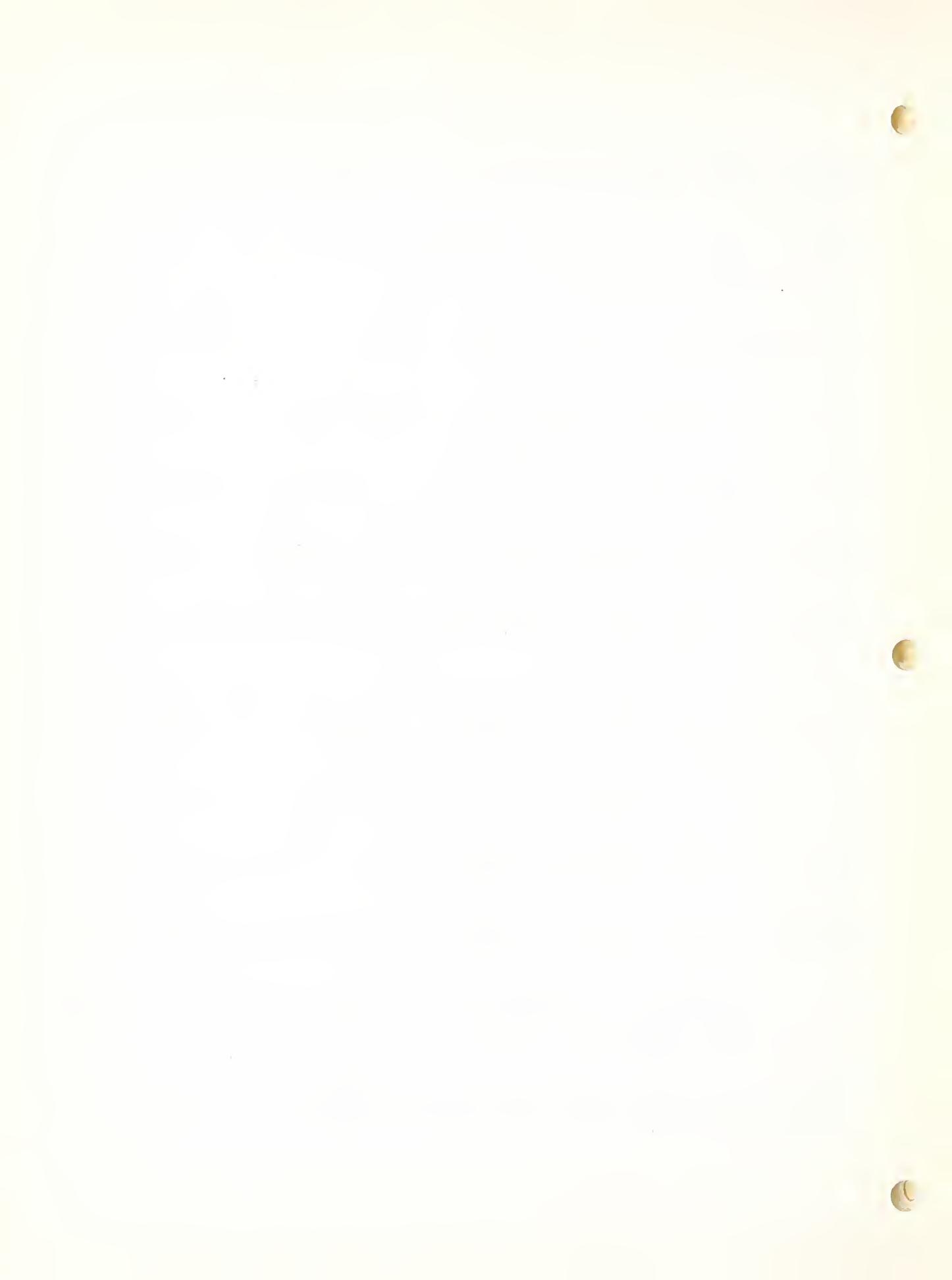
Nalbandov, A. V. 1950. Problems in swine reproduction. Vet. Med. 45:477-479.

Pomeroy, R. W. 1950. Prenatal mortality in an inbred strain of large white pigs. II Internat'l. Cong. Phys. and Path. of Anim. Reprod. and of Artif. Insem.

Rendel, J. M. 1950. Experimental analyses of the inheritance of productivity and growth in pigs. Anim. Breed. Abs. 18(3):235-240.

Robertson, G. L., Grummer, R. H., and Casida, L. E. 1950. A study of puberty and related phenomena in Chester White and Poland China gilts. (Abs.) J. Anim. Sci. 9:681-682.

Robinson, George. 1950. Variations in gonadotrophic and thyrotropic potency of pituitaries from pregnant and non-pregnant swine. Ph.D. Thesis. Univ. of Ill. Libr. Urbana.



1950

Robinson, G. E., Jr. and Nalbandov, A. V. 1950. The hormone content of pituitaries of cycling swine. (Abs.) J. Anim. Sci. 9:682.

Squiers, Clifford Dale. 1950. Factors affecting litter size in certain strains of swine and their crosses. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Squiers, C. D., Dickerson, G. E., and Mayer, D. T. 1950. Factors affecting litter size during early pregnancy in certain strains of swine and their crosses. (Abs.) J. Anim. Sci. 9:683.

Stothart, J. G. and Fredeen, H. T. 1950. Selection on the basis of performance in swine. Proc. Canad. Soc. Anim. Prod. pp. 49-51.

Stringam, E. W., Winters, L. M., and Jordan, P. S. 1950. The genealogy of an inbred Poland China herd of swine. Minn. Agr. Exp. Sta. Tech. Bul. 191.

Trimble, K. G. and Bernard, C. 1950. Study of selection intensities and probable effectiveness of selection in herds of swine on Wisconsin farms. M.S. Thesis. Univ. of Wis. Libr. Madison.

Turman, E. J. 1950. Comparative testicular development of some inbred, purebred, crossbred and crossline boars. M.S. Thesis. Purdue Univ. Libr. Lafayette.

Vernon, Eugene H. 1950. Influence of inbreeding upon mortality among inbred lines of swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Warwick, E. J. and Wiley, J. R. 1950. Progress in inbred lines of swine and their uses in crosses. Purdue Univ. Agr. Exp. Sta. Bul. 552.

Warwick, E. J. and Wiley, J. R. 1950. Some correlations between items measuring growth in swine. Reg. Swine Breed. Lab. Res. Item 27. Oct. 25, 1950. Ames, Iowa.

Whatley, J. A. 1950. Lower hog prices can be offset with more productive sows. The Farmer-Stockman. May.

Whatley, J. A. 1950. Productive sows are profitable sows. The Duroc News. 24(7):252-253. July.

Whatley, J. A., Chambers, D. and Hillier, J. C. 1950. Performance tests with crosses of inbred hogs. Okla. Agr. Exp. Sta. MP-17.

Whiteman, J. V., Hillier, J.C., and Whatley, J. A., Jr. 1950. Carcass studies on hogs of different breeding. (Abs.) J. Anim. Sci. 9:640-641.



1950

Wiggins, E. L., Casida, L. E., Grummer, R. H. 1950. The effect of season of birth on sexual development in gilts. J. Anim. Sci. 9:277-280.

Wiggins, E. L., Casida, L. E., Grummer, R. H. 1950. The incidence of female genital abnormalities in swine. J. Anim. Sci. 9:269-276.

Wilson, G. D. 1950. Comparison of carcasses from topcross and non-topcross pigs. M. S. Thesis. Univ. of Wis. Libr. Madison.

Winters, L. M. 1950. The modern use of tools, inbreeding, crossbreeding, and selection for pig improvement. Marshall Press. London. pp. 22-52.

1951

Aunan, Woodrow J. 1951. A method for measuring the proportion of fat and lean tissue in swine carcasses. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Baird, D.M. 1951. Physiological causes of genetically different rates of growth in Hampshire swine. Ph.D. Thesis. Univ. of Ill. Libr. Urbana.

Baird, D. M., Nalbandov, A. V., and Norton, H. W. 1951. Endocrine causes of genetically different growth rates in Hampshire swine. (Abs.) J. Anim. Sci. 10:1072-1073.

Bentinck-Smith, J. 1951. A congenital epithelial defect in a herd of Berkshire swine. Cornell Vet. 41(1):47-51.

Blackburn, Thomas R. 1951. A study of the R.O.P. records on Minnesota No. 1 swine. M.S. Thesis. Univ. of Minn. Libr. St. Paul.

Brown, C. J., Hillier, J. C., and Whatley, J. A. 1951. Specific gravity as a measure of the fat content of the pork carcass. J. Anim. Sci. 10:97-103.

Chambers, D. and Whatley, J. A., Jr. 1951. Heterosis in crosses of inbred lines of Duroc swine. J. Anim. Sci. 10:505-515.

Chapman, A. B. 1951. Effectiveness of selection in laboratory animals. J. Anim. Sci. 10:3-8.

Craft, W. A., Chapman, A. B., Sierk, C. F., Winters, L. M., Dickerson, G. E., Terrill, C. E., and Lush, J. L. 1951. Effectiveness of selection. A symposium presented at the 1949 meeting of the Amer. Soc. Anim. Prod. J. Anim. Sci. 10:3-21.

Cummings, J. N. and Winters, L. M. 1951. A study of factors related to carcass yields in swine. Minn. Agr. Exp. Sta. Tech. Bul. 195.

Damon, R. A. 1951. A study of selection for factors of performance in the swine herds of the Hormel Foundation. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Dickerson, G. E. 1951. Effectiveness of selection for economic characters in swine. J. Anim. Sci. 10:12-17.

Dickerson, G. E., Blunn, C. T., Chapman, A. B., Kottman, R. M., Krider, J. L., Warwick, E. J., and Whatley, J. A. 1951. Selection practiced in developing inbred lines of swine. (Abs.) J. Anim. Sci. 10:1024-1025.

Dickerson, G. E. and Lasley, J. F. 1951. Progress in swine breeding investigations. Mo. Agr. Exp. Sta. Prog. Rept. 16. pp. 3-10.



1951

Dickerson, G. E. 1951. What swine breeding research means to hog producers. Address, Ill. Swine Growers' Day Program at Urbana, Ill. Apr. 12. Anim. Sci. 219.

Donald, H. P. 1951. Genetic variation in color pattern of Wessex Saddleback pigs. J. Agr. Sci. 41(3):214-221.

Durham, R. M. 1951. Inbred and linecross boars vs. non-inbred and non-linecross boars used in two-sire herds. Ph.D. Thesis. Univ. of Wis. Libr. Madison.

Fine, N.C. 1951. A study of selection for factors of performance in the Minnesota No. 1 and No. 2 inbred lines of swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Gregory, Keith Edward. 1951. Influence of heterosis and plane of nutrition on rate and economy of gains, digestion and carcass composition of pigs. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Haggqvist, G. 1951. A report of the experiments carried out to date on chromosome doubling in pigs. Svenska Svinavelsforen Tidskr. 1951(7):109-112. (Anim. Breed. Abs. 1818. 19(4):494-495).

Hammond, J. 1951. Adaptation of livestock to new environments. Proc. U.N. Sci. Resources Conf. 6:414.

Hansard, S. L., Sauberlich, H. E., and Comar, C. L. 1951. Blood volume of swine. Proc. Soc. Expt. Biol. Med. 78:544-_____.

Hazel, L. N. and Kline, E. A. 1951. Mechanical measurements of backfat thickness on live hogs. (Abs.) J. Anim. Sci. 10:1025-1026.

Hetzer, H. O., Hankins, O. G., and Zeller, J.H. 1951. Performance of crosses between six inbred lines of swine. USDA Cir. 893.

Hillier, J. C., Whatley, J. A., Jr., Whiteman, J. V., and Gard, D. I. 1951. The effect of the energy content of the ration and rate of gain on certain characteristics of the pork carcass. Okla. Agr. Exp. Sta. Ann. Livestock Feeders' Day Rept. pp. 90-94.

Hutchison, K. J. 1951. Observations on the use of the Hammond system of pig carcass appraisal in Queensland. Qd. J. Agr. Sci. 8:106-119.

Lasley, J. F. and Tribble, L. F. 1951. Influence of feeding levels on production costs and carcass quality. Mo. Agr. Exp. Sta. Prog. Rept. 13:3-5.

Lerner, E. H. 1951. Early embryonic mortality in gilts as found in several strain crosses. M.S. Thesis. Univ. of Mo. Libr. Columbia.



1951

Lu, Kuo Hwa. 1951. A study of size of sample in litter testing swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Lush, J. L. 1951. The effectiveness of selection. Summary. J. Anim. Sci. 10:18-21.

Lush, J. L. 1951. Genetics of animal breeding. Genetics in the Twentieth Century. Chapt. 22. MacMillan.

Lush, J. L. 1951. The impact of genetics on animal breeding. J. Anim. Sci. 10:311-321.

Magee, W. T. 1951. Inheritance of scrotal hernia in swine. J. Anim. Sci. 10:516-522.

Magee, William T. 1951. Causes of variation in 154-day weights among Poland China pigs from multiple crosses of inbred lines. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Makino, S. 1951. Chromosome numbers in animals. Iowa State Coll. Press, Ames. p. 285.

Mason, I. L. 1951. A world dictionary of breeds, types, and varieties of livestock. Commonwealth Agr. Bureaux, Tech. Communication #8, England.

Melander, Y. 1951. Polyploidy after Colchicine treatment of pigs. Hereditas (Lund). 37:288-289.

Musson, A. L. 1951. Causes of variation in gestation length in swine. (Abs.) J. Anim. Sci. 10:1028.

Musson, Alfred L. 1951. Causes of variation in gestation length in swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames. (Iowa State Coll. J. Sci. 27:224. 1953).

Nalbandov, A. V. 1951. Anatomic and endocrine causes of sterility in female swine. Fertility and Sterility. (Manuscript accepted).

Niwa, T., Ito, S., Yokoyama, H., and Otsuka, M. 1951. Studies on the milk production of the sow. Nat. Instit. Agr. Sci. (Japan). Series B, No. 1, p. 135.

Osinska, Z. 1951. The influence of litter origin on the tenderness of pork. (Polish) Roczn. Nauk Rol. B. 57:67-75.



1951

Robertson, G. L., Casida, L. E., Grummer, R. H., and Chapman, A. B. 1951. Some feeding and management factors affecting age at puberty and related phenomena in Chester White and Poland China gilts. *J. Anim. Sci.* 10:841-866.

Robertson, G. L., Grummer, R. H., Casida, L. E., and Chapman, A. B. 1951. Age at puberty and related phenomena in outbred Chester White and Poland China gilts. *J. Anim. Sci.* 10:647-656.

Robertson, G. L., Grummer, R. H., and Chapman, A. B. 1951. Some feeding and management factors affecting age at puberty in Chester White and Poland China gilts. (Abs.) *J. Anim. Sci.* 10:1080.

Robinson, G. E., Jr. and Nalbandov, A. V. 1951. Changes in the hormone content of swine pituitaries during the estral cycle. *J. Anim. Sci.* 10:469-478.

Roubicek, C. B., Winters, L. M., and Kiser, O. M. 1951. A genealogical study of the Minnesota No. 2 hog. *Minn. Agr. Exp. Sta. Tech. Bul.* 193.

Sierk, C. F. and Winters, L. M. 1951. Effectiveness of selection for economically important characters in swine. *J. Anim. Sci.* 10:9-17.

Sierk, C. F. and Winters, L. M. 1951. A study of heterosis in swine. *J. Anim. Sci.* 10:104-111.

Turman, E. J. and Wiley, J. R. 1951. Use of inbred lines in producing market hogs. *Purdue Univ. Agr. Exp. Sta. Mimeo.* AH-67.

Walley, J. K. 1951. X-rays in pig breeding: Use of X-ray for the selection of breeding stock. *Vet. Rec.* 63:638.

Warnick, A. C., Wiggins, E. L., Casida, L. E., Grummer, R. H., and Chapman, A. B. 1951. Variation in puberty phenomena in inbred gilts. *J. Anim. Sci.* 10:479-493.

Whatley, J. A., Jr. and Chambers, D. 1951. Productivity of line cross, inbred, and outbred Duroc gilts. *Proc. So. Agr. Workers Assn.*, Memphis. Feb.

Whatley, J. A., Jr., Gard, D. I., Whiteman, J. V., and Hillier, J. C. 1951. Influence of breeding and energy content of the ration on pork carcasses. (Abs.) *J. Anim. Sci.* 10:1030.

Whatley, J. A., Jr., Hillier, J. C., Whiteman, J. V., and Chambers, D. 1951. The performance of inbred lines of hogs in crosses. *Okla. Agr. Exp. Sta. Ann. Livestock Feeders' Day Rept.* pp. 15-19.

Whatley, J. A., Jr., Stephens, D. F., and Chitwood, Joe. 1951. Ft. Reno line crossing tests with hogs. *Field Day Rept.*, Ft. Reno. July 28, 1951.

1951

Whiteman, J. V., Hillier, J. C., and Whatley, J. A. 1951. Carcass studies on hogs of different breeding. J. Anim. Sci. 10:638-646.

Whiteman, Joe V. 1951. Carcass studies on hogs of different breeding. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Wiggins, E. L., Grummer, R. H., and Casida, L. E. 1951. Minimal volume of semen and number of sperm for fertility in artificial insemination of swine. J. Anim. Sci. 10:138-143.

Wiggins, E. L., Warnick, A. C., Grummer, R. H., Casida, L. E., and Chapman, A. B. 1951. Variation in puberty phenomena in inbred boars. J. Anim. Sci. 10:494-504.

Wiley, J. R., Paarlberg, D., and Jones, R. C. 1951. Objective carcass factors related to slaughter hog value. Purdue Univ. Agr. Exp. Sta. Bul. 567.



1952

Anon. 1952. Another breed of inbred hog established at Beltsville. Ann. Rept., Bureau Anim. Ind., USDA. pp. 30-31.

Anon. 1952. Two new breeds of meat-type hogs developed by breeding research. Vet. Med. 47:262.

Arthaud, R. L. and Dickerson, G.E. 1952. Live animal scores and split carcass measurements as indicators of carcass value in swine. (Abs.) J. Anim. Sci. 11:736.

Aunan, W. J. and Winters, L. M. 1952. A method for measuring the proportion of fat and lean tissues in swine carcasses. J. Anim. Sci. 11:319-325.

Baird, D. M., Nalbandov, A. V., and Norton, H. W. 1952. Some physiological causes of genetically different rates of growth in swine. J. Anim. Sci. 11:292-300.

Baker, L. N., Woehling, H. L., Casida, L. E., and Grummer, R. H. 1952. Occurrence of estrus in sows following parturition. (Abs.) J. Anim. Sci. 11:738.

Blount, W. P. 1952. Practical aspects of litter testing. Proc. Brit. Soc. Anim. Prod. 17th Meet. pp. 34-37, 47-49.

Blunn, C. T. 1952. Breeding for better swine. Nebr. Agr. Exp. Sta. Quart. Vol. 1(3).

Bradford, G. E. 1952. Part I. A survey of the association of time of farrow and performance in spring farrowed pigs. Part II. Performance of different breeds of hogs on Wisconsin farms. M.S. Thesis. Univ. of Wis. Libr. Madison.

Burger, J. F. 1952. Sex physiology of pigs. Ondersteepoort. J. Vet. Res. Supp. No. 2.

Casida, L. E. 1952. Fertilization failure and embryonic death in domestic animals. Pregnancy Wastage. Charles C. Thomas, Springfield.

Christian, R. E., Black, H. R., and Ensminger, M. E. 1952. The comparative performance of swine selected for four generations on high or low plane of nutrition. (Abs.) J. Anim. Sci. 11:738.

Clausen, H. 1952. The development of the Danish Landrace pig. Pig Breed. Gaz. No. 69(9):21-33. Apr.

Cobb, E.H. 1952. Lean cuts and fatness as related to rate and economy of gain in swine. M.S. Thesis. Iowa State Coll. Libr. Ames.

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1952

Cockerham, C. C. 1952. Genetic covariance among characteristics of swine. (Abs.) J. Anim. Sci. 11:738.

Cockerham, C. Clark. 1952. Genetic covariance among characteristics of swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames. (Iowa State Coll. J. Sci. 27:149. 1953).

Dickerson, G. E. 1952. Inbred lines for heterosis tests? Heterosis. Chapt. 21. Iowa State Coll. Press. Ames.

Durham, R. M., Chapman, A. B., and Grummer, R. H. 1952. Inbred versus non-inbred boars used in two sire herds on Wisconsin farms. J. Anim. Sci. 11:134-155.

Engelman, G., . 1952. Objective grade standards for slaughter hogs. Minn. Agr. Exp. Sta. Bul. 414. (N.C. Reg. Pub. 30).

England, D. C. and Winters, L. M. 1952. The effects of genetic diversity and performance of inbred lines per se on hybrid vigor in swine. (Abs.) J. Anim. Sci. 11:740.

England, David C. 1952. Crossbreeding in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Fine, N. C. and Winters, L. M. 1952. Selection for fertility in two inbred lines of swine. J. Anim. Sci. 11:301-312.

Fredeen, H. T. 1952. Genetic aspects of Canadian Bacon production. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Gregory, K.E. and Dickerson, G. E. 1952. Influence of heterosis and plane of nutrition on rate and economy of gains, digestion and carcass composition of pigs. Mo. Agr. Exp. Sta. Res. Bul. 493.

Hankins, O. G., Hiner, R. L., and Sloane, H. S. 1952. A re-evaluation of the significance of dressing percentage of hogs. J. Anim. Sci. 11:748.

Hauser, E. R., Dickerson, G. E., and Mayer, D. T. 1952. Reproductive development and performance of inbred and crossbred boars. Mo. Agr. Exp. Sta. Res. Bul. 503.

Hauser, Edward Richard. 1952. Reproductive development and performance of boars from certain inbred strains and their crosses. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Hazel, L. N. and Kline, E. A. 1952. Mechanical measurement of fatness and carcass value on live hogs. J. Anim. Sci. 11:313-318.

1952

Henderson, C. R. 1952. Specific and general combining ability. Heterosis. Chapt. 22. Iowa State Coll. Press, Ames.

Johansson, I. and Robertson, A. 1952. Progeny testing on the breeding of farm animals. European Assn. Anim. Prod. Pub. No. 2, pp. 9-32.

Johansson, I. and Robertson, A. 1952. Progeny testing in the breeding of farm animals. Proc. Brit. Soc. Anim. Prod. 17th Meet. pp. 79-105.

King, W. R., Gobble, J. L., and Henning, W. L. 1952. A study of the use of inbred boars for crossbreeding in swine. (Abs.) J. Anim. Sci. 11:741-742.

Kottman, Roy M. 1952. Intensity and effectiveness of selection in swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Lasley, J. F. 1952. Swine breeding research at the Mo. Agr. Exp. Sta. Anim. Husb. Prog. Rept. 21. pp. 7-9.

Marshall, F.H.A. and Hammond, J. 1952. Fertility and animal breeding. 6th ed. Ministry of Agr. Bul. 39.

Pomeroy, R. W. 1952. Prenatal mortality in an inbred strain of Large White pigs. Proc. 2nd Int. Cong. Phys. and Path. Anim. Reprod. Copenhagen.

Rempel, W. E. 1952. A study of selection for factors of performance in inbred lines of Poland China swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Rempel, W.E. and Winters, L. M. 1952. A study of selection for factors of performance in inbred lines of Poland China swine. (Abs.) J. Anim. Sci.

Reynolds, J. W. and Kiehl, E. R. 1952. A determination of objective grade standards for slaughter hogs. Mo. Agr. Exp. Sta. Res. Bul. 507.

Shelby, C. E. 1952. Genetic aspects of the production registry program of the United Duroc Record Association. Ph.D. Thesis. Iowa State Coll. Libr. Ames. (Iowa State Coll. J. Sci. 28:399-401. 1954).

Squiers, C. D., Dickerson, G. E., and Mayer, D. T. 1952. Influence of inbreeding, age and growth rate of sows on sexual maturity, rate of ovulation, fertilization and embryonic survival. Mo. Agr. Exp. Sta. Res. Bul. 494.

Stratton, P. O. 1952. The comparative effectiveness of selection in swine before and after testing their progeny. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

1952

Teague, H. S. 1952. The effect of vitamin A and other nutritional factors upon the breeding performance of gilts and the prenatal development of their litters. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Tucker, H.F., Dickerson, G. E., and Lasley, J.F. 1952. Crossbreeding effects on growth, digestion, feed utilization and carcass composition in swine under full and equalized feeding, with and without antibiotics. (Abs.) J. Anim. Sci. 11:745.

Tullis, J. L., Chambers, F. W., Jr., Morgan, J.E., and Zeller, J.H. 1952. Mortality in swine and dose distribution studies in phantoms exposed to supervoltage roentgen radiation. Amer. J. Roentgenology Radium Therapy and Nuclear Medicine. 67(4):620-627.

Turman, E. J. and Wiley, J. R. 1952. The use of inbred lines of swine in the production of market hogs. Purdue Univ. Agr. Exp. Sta. Mimeo. AH-88.

Warren, W. M. and Dickerson, G.E. 1952. Components of performance in selecting for heterosis in swine. Mo. Agr. Exp. Sta. Res. Bul. 511.

Warren, W.M. and Dickerson, G. E. 1952. An optimum weighing of components of performance in selecting for heterosis in swine. (Abs.) J. Anim. Sci. 11:745-746.

Warren, William Michael. 1952. An optimum weighing of components of performance in selecting for heterosis in swine. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Whatley, J. A., Jr., Chambers, D., Stephens, D. F., and Chitwood, J. B. 1952. Breeding tests with inbred lines of hogs. Okla. Agr. Exp. Sta. Ann. Livestock Feeders' Day Rept. pp. 60-63.

Whiteman, J. V., Hillier, J. C., and Whatley, J. A., Jr. 1952. A further investigation of specific gravity as a measure of pork carcass value. (Abs.) J. Anim. Sci. 11:753.

Whiteman, Joe V. 1952. A further investigation of specific gravity and other measures of pork carcass value. Ph.D. Thesis. Okla. A & M Coll. Libr. Stillwater.

Winters, L. M. 1952. Rotational crossbreeding and heterosis. Heterosis. Chapt. 23. Iowa State Coll. Press. Ames.

Zeller, J. H. 1952. New breeds of meat-type hogs developed by research. USDA ARA, BAI, AHD 144 (Mimeo).

Zeller, J. H. 1952. The use of the Danish Landrace in swine research studies in the United States of America. Proc. 6th Internat'l. Cong. Anim. Husb. Copenhagen. 1:144-157.

1953

Arthaud, Raymond Louis. 1953. Live animal scores and split carcass measurements as indicators of carcass value in swine. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Baker, L. N., Woehling, H. L., Casida, L. E., and Grummer, R. H. 1953. Occurrence of estrus in sows following parturition. J. Anim. Sci. 12:33-38.

Bernard, C. S. 1953. Construction of an index for selecting swine under farm conditions. Ph.D. Thesis. Univ. of Wis. Libr. Madison.

Blackmore, D. W. 1953. Relationships between rate of growth, leanness and organ weights in swine. M.S. Thesis. Iowa State Coll. Libr. Ames.

Blunn, C. T., Baker, G. N., and Hanson, L. E. 1953. Heritability of gain in different growth periods in swine. J. Anim. Sci. 12:39-50.

Boulware, R. F. 1953. Efficiency and effectiveness of selection in crossbred swine. Ph.D. Thesis. Univ. of Nebr. Libr. Lincoln.

Bradford, G. E., Chapman, A. B., and Grummer, R. H. 1953. Performance of hogs of different breeds and from straightbred and crossbred dams on Wisconsin farms. J. Anim. Sci. 12:582-590.

Bradford, G. E., Chapman, A. B., and Grummer, R. H. 1953. Time of farrow and performance in spring farrowed pigs. J. Anim. Sci. 12:848-855.

Bratzler, L. J. and Margerum, E. P., Jr. 1953. The relationship between live hog score and carcass measurements. J. Anim. Sci. 12:856-858.

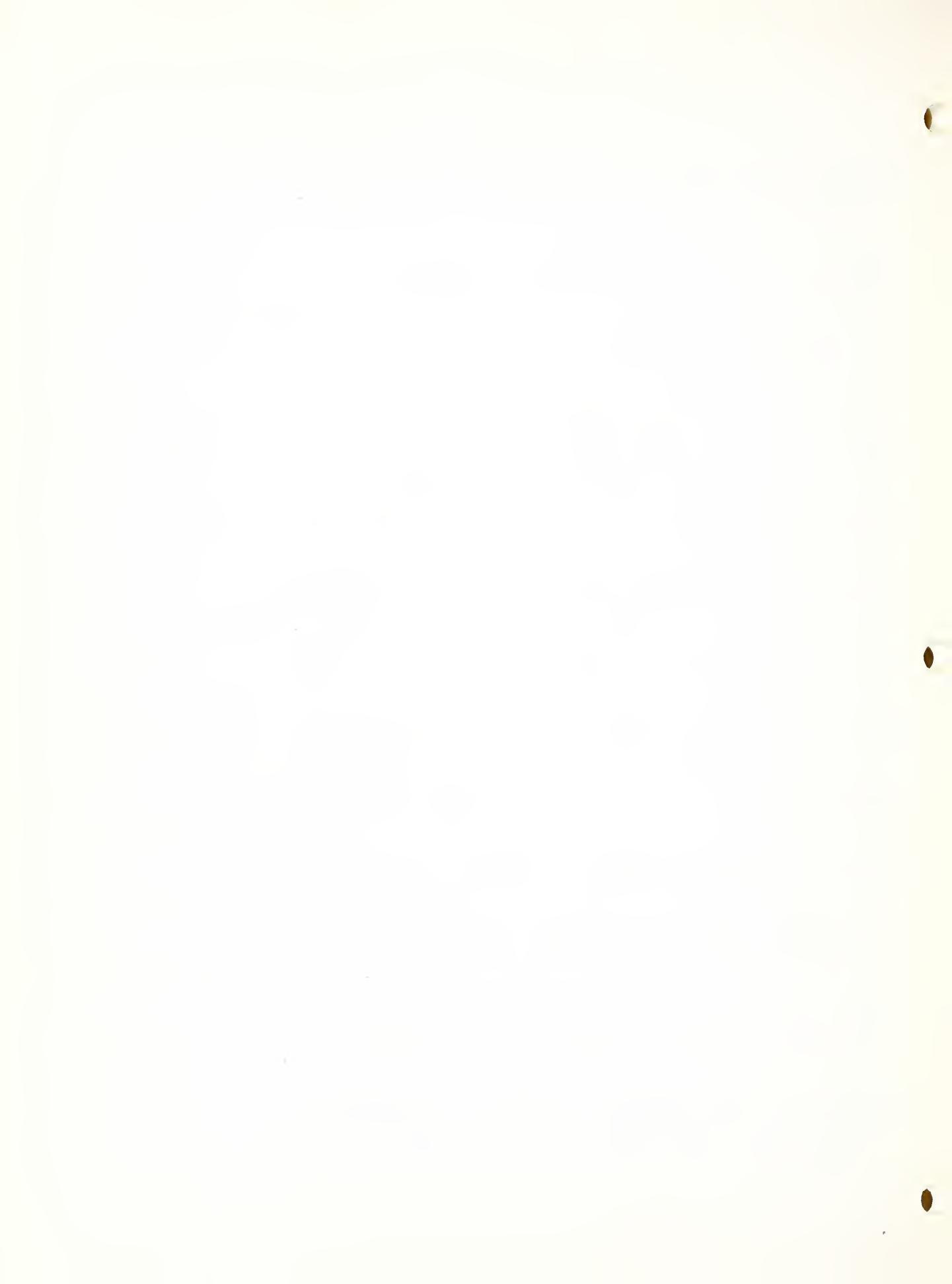
Buxton, J. C. and Brooksbank, N. H. 1953. Haemolytic disease of newborn pigs caused by isoimmunization of pregnancy. Nature. 172:355.

Buxton, J. C. and Brooksbank, N. H. 1953. Haemolytic disease of newborn pigs caused by isoimmunization of pregnancy. Vet. Record. 65:287-288.

Cahill, V. R., Sutton, T. S., and Kunkle, L. E. 1953. Relationship of area of longissimus dorsi muscle to other carcass characteristics. (Abs.) J. Anim. Sci. 12:899-900.

Carlo, Ismael. 1953. A study of the performance of F_2 and F_3 crossbred swine as compared with the purebred parental strains. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Chung, C. S. 1953. Time of farrow and weight of gilts in relation to selection practice in the herds of the Wisconsin Swine Selection Cooperative. M.S. Thesis. Univ. of Wis. Libr. Madison.



1953

Clausen, H. 1953. The improvement of pigs. The Natl. Research Institute of Animal Husbandry, Copenhagen. (George Scott Robertson Memorial Lecture. Queens Univ., Belfast).

Craft, W. A. 1953. Results of swine breeding research. USDA Cir. 916.

Craft, W. A. 1953. What should be the requirements for the Ph.D. degree in animal breeding. Invitational paper. Teaching Sect., Amer. Soc. Anim. Prod. Nov., 1952. J. Anim. Sci. 12:657-659.

Craig, J. V. and Chapman, A. B. 1953. Experimental test of predictions of inbred line performance in crosses. J. Anim. Sci. 12:124-139.

Dinkel, Christian Alfred. 1953. Predicting performance of single and multiple crosses from performance of inbred lines of swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Donald, H. P. 1953. Heterosis in livestock. Nat. Agr. Adv. Serv. Quart. Rev. No. 21. Autumn.

Donald, H. P. and Bishop, G.R.H. 1953. Recent developments in pig breeding. J. Roy. Agr. Soc. England. 114:50-53.

Engelman, G., Dowell, A. A., and Olsen, R. E. 1953. Relative accuracy of pricing butcher hogs on foot and by carcass weight and grade. Minn. Agr. Exp. Sta. Tech. Bul. 203.

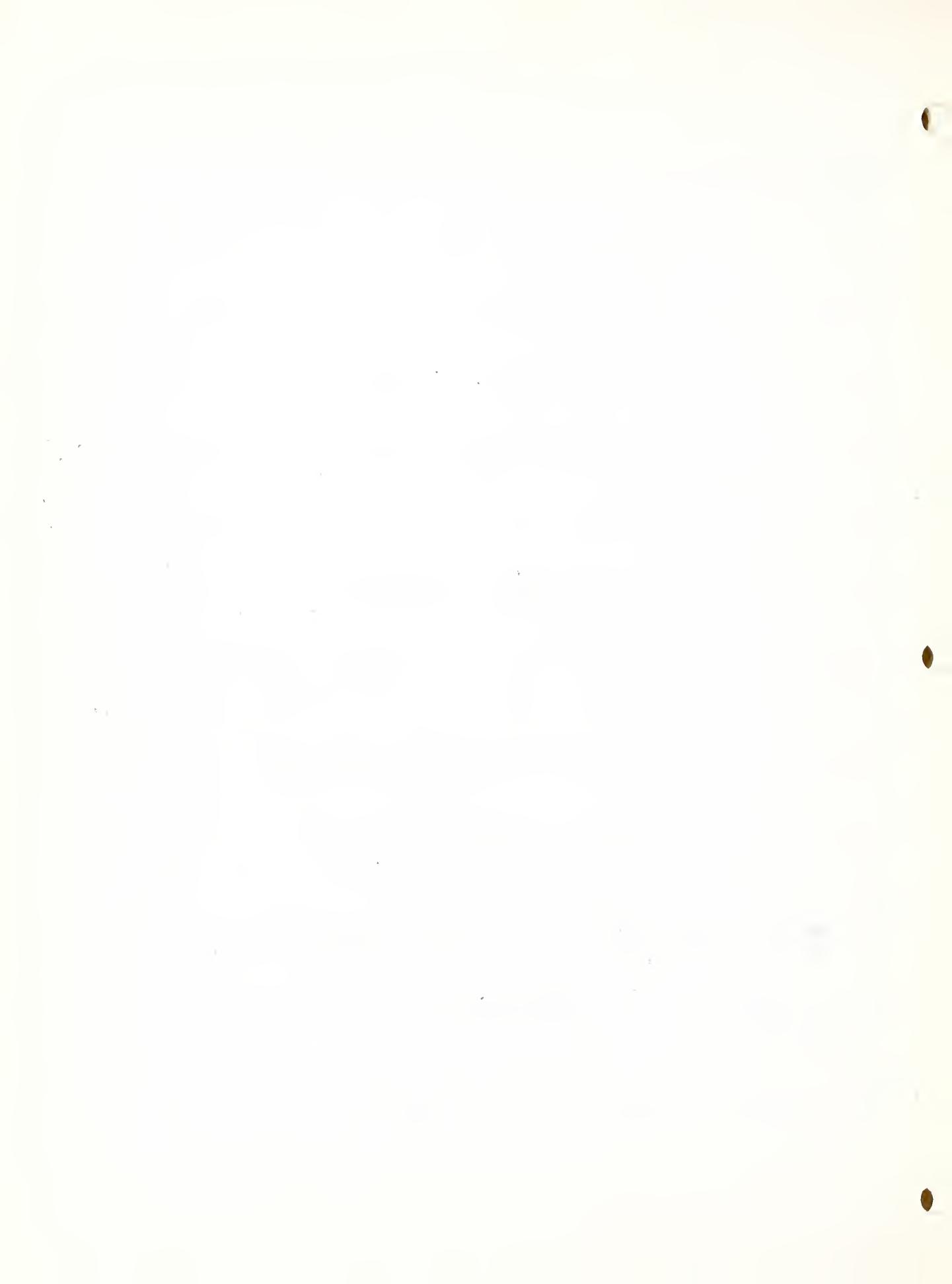
England, D. C. and Winters, L. M. 1953. The effects of genetic diversity and performance of inbred lines per se on vigor in swine. J. Anim. Sci. 12:836-847.

England, D. C., Winters, L. M., and Carpenter, L. E. 1953. The development of a miniature breed of swine - a preliminary report. (Abs.) J. Anim. Sci. 12:894.

Fausch, H. D. 1953. A study of the relationship between inbreeding and variability in the Minnesota No. 1 and No. 2 swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Fine, N. C. and Winters, L. M. 1953. Selection for an increase in growth rate and market score in two inbred lines of swine. J. Anim. Sci. 12:251-262.

Fox, R. L., Wheeler, A. E., and Randell, C. G. 1953. Measuring the marketability of meat-type hogs. USDA - FCA - Cir. C-152.



1953

Fredeen, H. T. 1953. Genetic aspects of Canadian Bacon production. Canada Dept. Agr. Pub. 889.

Gawienowski, A., Mayer, D. T., and Lasley, J. F. 1953. An investigation of the protein-bound iodine with its correlation to average daily gain and morphological variations. (Abs.) J. Anim. Sci. 12:946-947.

Hansard, S. L. 1953. Blood volume of farm animals. J. Anim. Sci. 12:402-413.

Hazel, L. N. 1953. Swine breeding research. Hampshire Herdsman. June. pp. 24, 26, 27.

Hazel, L. N. 1953. Swine research helps the producer. The Hormel Farmer. 17(8), May 15.

Hazel, L. N. and Kline, E. A. 1953. Accuracy of eight sites for probing live pigs to measure fatness and leanness. (Abs.) J. Anim. Sci. 12:894-895.

Henning, G. F. and Evans, M. B. 1953. Market hogs can be accurately graded. Ohio Agr. Exp. Sta. Res. Bul. 728.

Henning, G. F. and Evans, M. B. 1953. New grading method. Ohio Farm & Home Res. 38(282):52-55.

Hetzer, H. O., Comstock, R. E., and Zeller, J. H. 1953. Combining ability of seven inbred and four non-inbred stocks of swine. (Abs.) J. Anim. Sci. 12:895.

Holleman, R. G., Jr. and Whatley, J. A., Jr. 1953. The amount and effectiveness of selection in developing an inbred line of hogs. Proc. So. Agr. Workers Assn. 50:61-62.

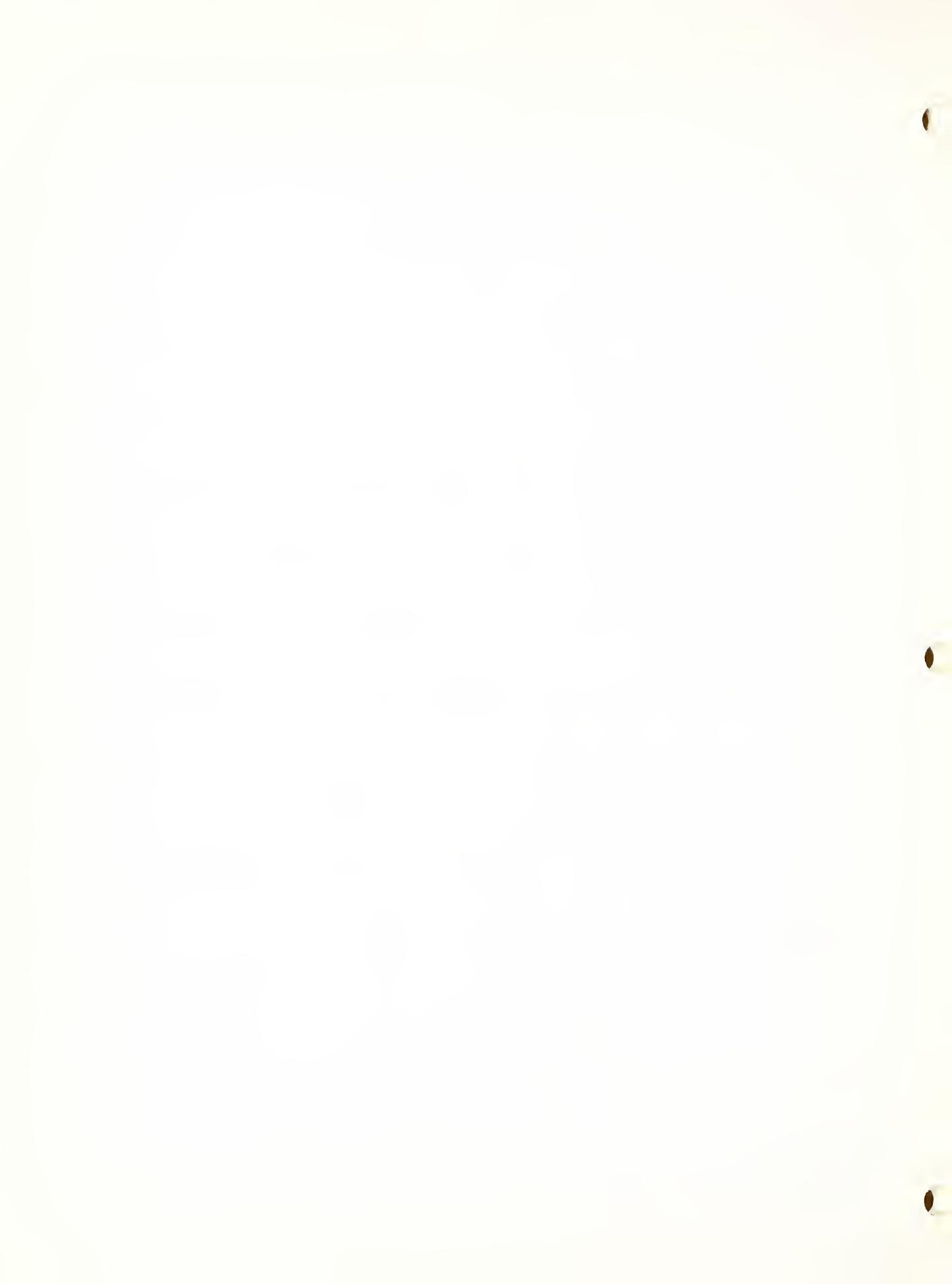
Holleman, Rutledge Gordon, Jr. 1953. A study of the development of an inbred line of Duroc swine. Ph.D. Thesis. Okla. State Univ. Libr. Stillwater.

Holt, R. H. 1953. An appraisal of crossbreeding in farm animals. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Hutchinson, K. J. 1953. Further observations on the Hammond system of pig carcass appraisal. Qd. J. Agr. Sci. 10:207-213.

Kraybill, H. F., Goode, E. R., Robertson, R. S. B., and Sloan, H. S. 1953. In vivo measurements of body fat and body water in swine. J. Appl. Physiology. 6:27-32.

Kristjansson, F. K. 1953. A study of corrections for factors influencing feed requirements of swine in the Minnesota swine breeding project. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.



1953

Kyle, W. H. and Chapman, A. B. 1953. Experimental check of the effectiveness of selection for a quantitative character. *Genetics*. 38(5):421-443.

Lasley, J. F. and Brady, D. E. 1953. The influence of the boar on the performance and carcass quality of market hogs. *Mo. Agr. Exp. Sta. Prog. Rept.* 22.

Lewis, W. L. and Warwick, E. J. 1953. Effectiveness of selection for body weight in mice. *J. Hered.* 44(6):233-238.

Lofvenberg, Sten. 1953. A study of selection intensity in the initial states of a swine reciprocal recurrent selection program. *M.S. Thesis. Okla. A & M Coll. Libr. Stillwater.*

McClung, Marvin Richard. 1953. Heritability of productive characters in Duroc swine. *Ph.D. Thesis. Iowa State Coll. Libr. Ames.*

Rempel, W. E. 1953. A study of selection for factors of performance in inbred lines of Poland China swine. *Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.*

Self, H. L., Grummer, R. H., and Casida, L. E. 1953. The effect of various sequences of full and limited feeding on the reproductive phenomena in Chester White and Poland China gilts. (Abs.) *J. Anim. Sci.* 12:954.

Skinner, James Bernard. 1953. The effectiveness of selection on an inbred line of Poland China swine. *M.S. Thesis. Univ. of Ark. Libr. Fayetteville.*

Syrstad, O. 1953. Litter testing 1952-53. (English Summary). *Agr. Coll. Norway Instit. Anim. Breed. Genet. Rept.* 74.

Teague, H. S., Carpenter, L. E., and Winters, L. M. 1953. The effect of moderate states of vitamin A deficiency on reproductive performance in gilts. (Abs.) *J. Anim. Sci.* 12:955.

Turman, E. J. 1953. Some effects of anterior pituitary growth hormone on swine. *Ph.D. Thesis. Purdue Univ. Libr. Lafayette.*

Whatley, J. A., Jr., Chambers, D., Stephens, D. F., and Tuefel, H. 1953. Swine breeding tests with crosses of inbred lines. *Okla. Agr. Exp. Sta. 27th Ann. Livestock Feeders' Day Rept.* Apr. 18, 1953. pp. 74-77.

Whatley, J. A., Jr., Gard, D. I., Whiteman, J. V., and Hillier, J. C. 1953. Meat-type hog production. *Okla. Agr. Exp. Sta. Bul. B-398.*

Whatley, J. A., Jr., Whiteman, J. V., Walters, L. E., and Hillier, J. C. 1953. Influence of breeding on swine carcass values. *Okla. Agr. Exp. Sta. 27th Ann. Livestock Feeders' Day Rept.* Apr. 18, 1953. pp. 3-8.

1953

Whiteman, J. V. and Whatley, J. A. 1953. An evaluation of some swine carcass measurements. *J. Anim. Sci.* 12:591-596.

Whiteman, J. V., Whatley, J. A., Jr., and Hillier, J. C. 1953. A further investigation of specific gravity as a measure of pork carcass value. *J. Anim. Sci.* 12:859-869.

Wilder, C. P. 1953. Comparison of four swine breeding systems. A Prog. Rept. So. Dak. Agr. Exp. Sta. Ann. Livestock Feeders' Day Rept. May 6, 1953. pp. 20-21.

Winters, L. M. 1953. Minnesota swine breeders anticipated the present demand for leaner pork. *Minn. Farm & Home Sci.* 10(3):18.

Wussow, W. and Weniger, J. H. 1953. Determination of fat deposition in pigs by means of x-ray measurement of backfat thickness. *Tierzucht.* 7:221.

Zobriski, S., Brady, D. E., and Lasley, J. F. 1953. Significant relationships in pork carcass evaluation. (Abs.) *J. Anim. Sci.* 12:904-905.

1954

Allen, A. D. 1954. The influence of some environmental conditions in performance of sows and pigs. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Allen, Arthur D. and Lasley, John F. 1954. Influence of season of birth on growth rate and survival of pigs. (Abs.) J. Anim. Sci. 13:955.

Anderson, David Eugene. 1954. Genetic relations between carcass characters, rate, and economy of gain in swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Andrews, F. N. and Whaley, R. M. 1954. A method of measurement of subcutaneous fat and muscular tissues in the live animal. (Mimeo) Purdue Univ. Anim. Science Dept.

Anon. 1954. National bacon hog policy-record of performance and advanced registry for purebred swine. Canad. Dept. of Agr. Prod. Serv.

Baker, L. N., Ulberg, L. C., Grummer, R. H., and Casida, L. E. 1954. Inhibition of heat by progesterone and its effect on subsequent fertility in gilts. J. Anim. Sci. 13:648-657.

Bernard, C. S., Chapman, A. B., and Grummer, R. H. 1954. Selection of pigs under farm conditions: kind and amount practiced and a recommended selection index. J. Anim. Sci. 13:389-404.

Birmingham, E., Brady, D. E., Hunter, S. M., Grady, J. C., and Kiehl, E. R. 1954. Fatness of pork in relation to consumer preference. Mo. Agr. Exp. Sta. Res. Bul. 549.

Blunn, C. T., Warwick, E. J., and Wiley, J. R. 1954. Interrelationships of swine weights at three ages. J. Anim. Sci. 13:383-388.

Boulware, R. F. 1954. Efficiency and effectiveness of selection in cross-bred swine. J. Anim. Sci. 13:160-170.

Bradford, G. E., Chapman, A. B., and Grummer, R. H. 1954. Comparisons of topcrosses by inbred and linecross boars with nontopcrosses in two-sire farm herds. (Abs.) J. Anim. Sci. 13:955.

Craig, J. V. 1954. Crossbreeding results with swine. Ill. Swine Growers' Day, Apr. 15, 1954. Univ. of Ill. Mimeo. AS-379.

Curtiss, Stanley L. 1954. The comparative value of selecting swine before and after progeny testing. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

DePape, J. G. and Whatley, J. A., Jr. 1954. Live hog probes at various sites, weights and ages as indicators of carcass merit. (Abs.) J. Anim. Sci. 13:957.

1954

DePape, Joseph G. 1954. Swine carcass studies. I. Genetic variation and covariation in carcass characters. II. The probe as an indicator of carcass merit. Ph.D. Thesis. Okla. State Univ. Libr. Stillwater.

Dickerson, G. E., Blunn, C. T., Chapman, A.B., Kottman, R.M., Krider, J. L., Warwick, E. J., Whatley, J. A., Jr. 1954. Evaluation of selection in developing inbred lines of swine. Mo. Agr. Exp. Sta. Res. Bul. 551. (N.C. Reg. Pub. 38).

Doll, E. R. and Brown, R. G. 1954. Isohemolytic disease of newborn pigs. Cornell Vet. 44:86-93.

Douce, Lowell Richard. 1954. Probing live hogs of different ages to evaluate carcass quality. M.S. Thesis. Iowa State Coll. Libr. Ames.

England, D. C., Winters, L. M., and Carpenter, L. E. 1954. The development of a breed of miniature swine -- a preliminary report. Growth. 18:207-214.

Fowler, S. H. and Robertson, G. L. 1954. The relationship between femininity ratings and reproductive performance in gilts. J. Anim. Sci. 13:940-948.

Fredeen, H.T. 1954. Rate of genetic improvement in swine as influenced by the size and sex composition of test litters. Canad. J. Agr. Sci. 34:121-130.

Hazel, L. N. 1954. Hogs to fit our needs. Iowa Farm Sci. 8(11):3-4. May.

Henderson, C. R. 1954. The effect of inbreeding on genetic components of general and specific combining ability. (Abs.) J. Anim. Sci. 13:959.

Hetzer, H. O. 1954. Effectiveness of selection for extension of black-spotting in Beltsville No. 1 swine. J. Hered. 45:214-223.

Hollandbeck, R., Baker, B., Jr., Nalbandov, A. V., and Norton, H. W. 1954. Age trends in gonadotrophic hormone in female swine pituitaries. (Abs.). J. Anim. 13:1021.

Joubert, D. M. 1954. On the post natal growth and development of muscle in relation to quality in meat. Proc. Brit. Soc. Anim. Prod. 1954:49-58.

Kielanowski, J., Lassota, L., and Osinska, Z. 1954. Investigations on fat content in the loin muscle of bacon pigs. (Polish) Roczn. Nauk. Rol. 69-B:33.



1954

Kielanowski, J. and Osinska, Z. 1954. Methods for estimating the fat and lean content of bacon carcasses. (Polish). Roczn. Nauk. Rol. 67-B:173-191.

Lasley, J. F. and Rice, F. J. 1954. Improving livestock through breeding. Mo. Agr. Exp. Sta. Bul. 618.

Lasley, J. F., Tribble, L. F., and Brady, D. E. 1954. Recent results of swine breeding experiments. Mo. Agr. Exp. Sta. 16th Ann. Livestock Feeders' Day Rept. Apr. 9. pp. 28-32.

Ludvigsen, J. 1954. Investigations on what is called muscular degeneration in hogs. (English Summary). Investigations into so called muscular degeneration in pigs. I. 272 Beretn. Forsogslab. (ABS 24:No. 729).

Lush, J. L. 1954. Breeding structure of populations. I. General considerations. Statistics and Mathematics in Biology. Chapt. 42. Iowa State Coll. Press. Ames.

Lush, J. L. 1954. Rates of genetic changes in populations of farm animals. Proc. Ninth Internat'l. Cong. Genetics, Bellagio, Italy. 1953. Caryologia. VI. Supp. pp. 589-599.

McCarty, J. W. 1954. Swine breeding progress at North Central Sub-station, Eureka. So. Dak. Agr. Exp. Sta. Cir. 103.

McCarty, J. W. 1954. Swine breeding research. So. Dak. Farmer & Homemaker. Apr.

McCarty, J. W. and Wilder, C. P. 1954. Rotation crossing of hogs doesn't run out. So. Dak. Farm & Home Res. Vol. VI. Fall, 1954.

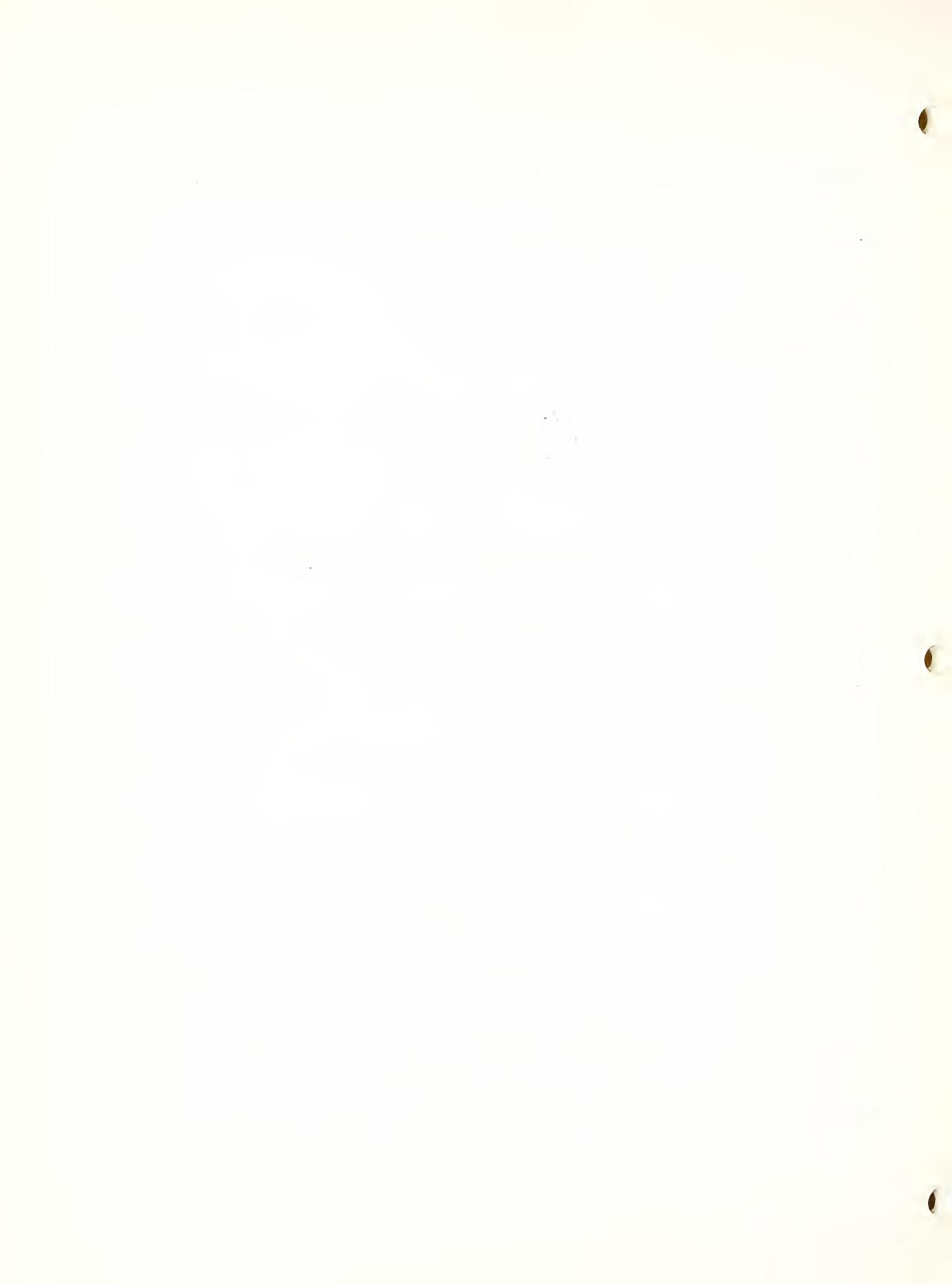
Merkel, R. A., Sorensen, D. K., Kowalczyk, T., and Bray, R. W. 1954. A technique for securing tissues to study intramuscular fat deposition in swine. Cornell Vet. 44:3-6.

Morley, F.H.W. 1954. The importance and genetic control of undesirable recessive genes in livestock. J. Austr. Instit. Agr. Sci. Sept.

Plum, Mogens. 1954. Computation of inbreeding and relationship coefficients. 45(2):92-94.

Reddon, R. A. 1954. Evaluation of the live-hog backfat probing technique and its use at 154 days in predicting carcass merit of hogs at slaughter weight. M.S. Thesis. Univ. of Wis. Libr. Madison.

Rees Evans, E. T. 1954. Investigations on the vertebral column of the Welsh pig. Proc. Brit. Soc. Anim. Prod. pp. 65-73.



1954

Sachs, L. 1954. Further evidence concerning chromosome number in the pig. J. Hered. 45:104.

Self, H. L., Grummer, R. H., and Casida, L. E. 1954. Blood fat levels in two breeds of gilts on different feeding level sequences. (Abs.) J. Anim. Sci. 13:1031.

Shepherd, G., Purcell, J. C., and Manderscheid, L. V. 1954. Economic analysis of trends in beef cattle and hog prices. Iowa Agr. Exp. Sta. Res. Bul. 405.

Sherritt, G. W., Hetzer, H. O., Cobb, E., and Gobble, J. L. 1954. A preliminary report of crossing seven inbred lines and four non-inbred breeds of swine. (Abs.) J. Anim. Sci. 13:962-963.

Skinner, R. L., Kastelic, J., Kline, E. A., and Homeyer, P. G. 1954. Relationship between physical measurements and the fat and water content of hog carcasses. (Abs.) J. Anim. Sci. 13:971.

Skinner, Robert Lee. 1954. Relationship between certain physical measurements and the fat, water, and dry matter content of hog carcasses. M.S. Thesis. Iowa State Coll. Libr. Ames.

Stanley, S. L. 1954. The comparative value of selecting swine before and after progeny testing. Ph. D. Thesis. Univ. of Minn. Libr. St. Paul.

Stothart, J. G. and Fredeen, H. T. 1954. Progress report on swine breeding. Prog. Rept. Dom. Expt. Farm. Lacombe. pp. 14-16.

Szent-Iványi, T. and Szabó, S. 1954. Blood groups in pigs. Acta vet. hung. (Budapest). 4:429-446.

Taylor, John Michael. 1954. Adjusting the live weight of pigs to 154 days. M.S. Thesis. Iowa State Coll. Libr. Ames.

Torres, J. R. 1954. Factors affecting gains of swine in a herd at Vicoso in Brazil. M.S. Thesis. Iowa State Coll. Libr. Ames.

Turman, E. J., and Andrews, F. N. 1954. Some effects of anterior pituitary growth hormone on swine. (Abs.) J. Anim. Sci. 13:1033.

Warwick, E. J. and Lewis, W. L. 1954. Growth and reproductive rates of mice. J. Hered. 45:35-38.

1954

Whatley, J.A., Jr. 1954. Production costs on hogs differing in carcass value. Proc. Interregional Livestock Prod. & Marketing Conf. Ext. Work. Raleigh, N. Car. pp. 24-27.

Whatley, J. A., Jr., Chambers, D., and Stephens, D. F. 1954. Using hybrid vigor in producing market pigs. Okla. Agr. Exp. Sta. Bul. B-415.

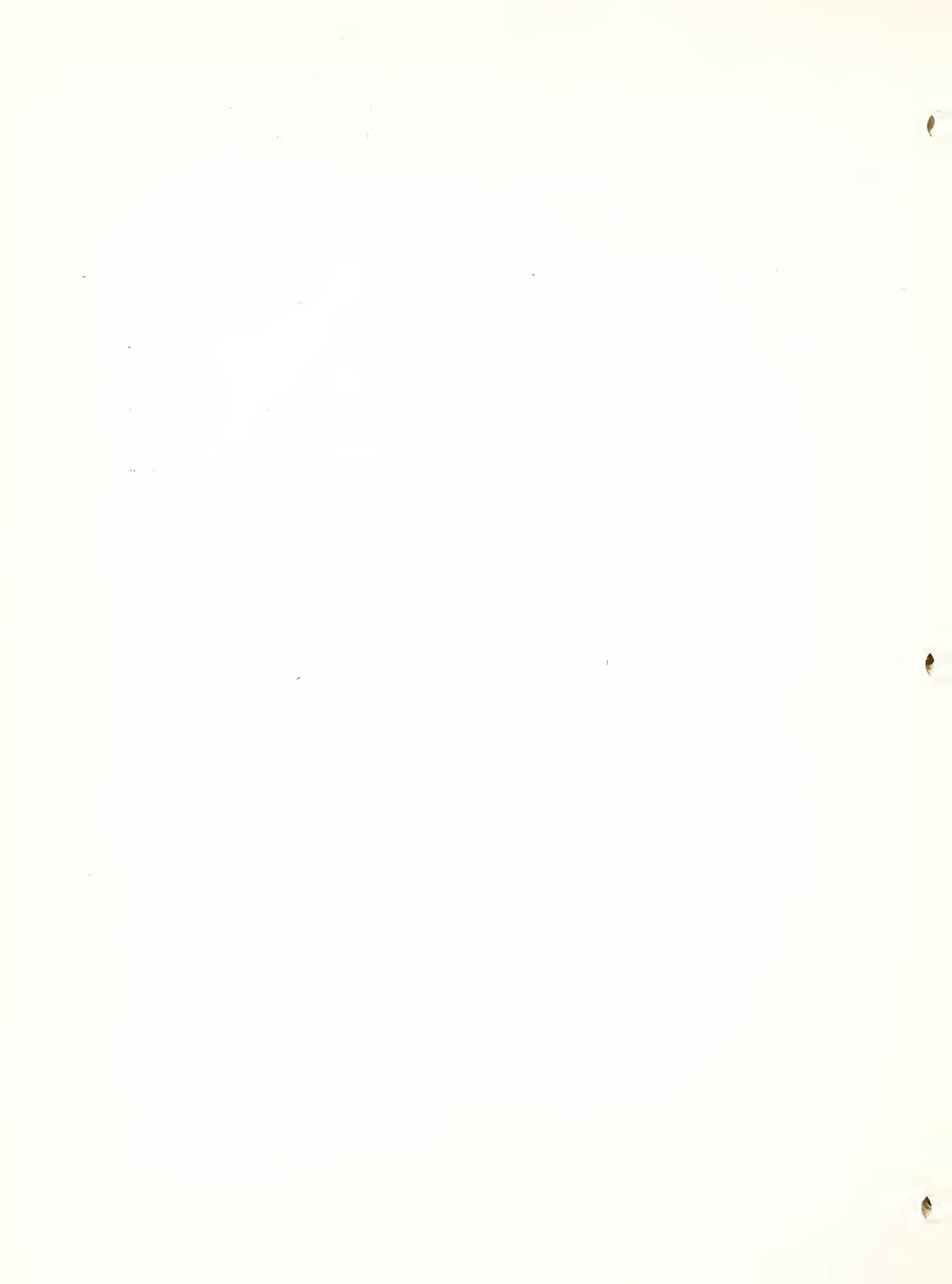
Whatley, J. A., Jr., DePape, J. G., Walters, L. E., and Chambers, D. 1954. The performance of two strains of hogs differing widely in carcass merit. Okla. Agr. Exp. Sta. MP 34:46-48.

Whatley, J. A., Jr., Stephens, D. F., and Teuffel, H. 1954. Performance tests with certain crosses of hogs. Okla. Agr. Exp. Sta. 28th Ann. Livestock Feeders' Day Rept. pp. 30-32.

Wilder, C. P. 1954. Seven year summary of swine breeding experiments at South Dakota State College. M.S. Thesis. S. Dak. State Coll. Libr. Brookings.

Winters, L. M., Rempel, W. E., and Cummings, J. N. 1954. Animal Breeding. 5th ed. John Wiley and Sons, Inc. N.Y.

Zobriskys, S. E., Lasley, J. F., Brady, D. E., and Weaver, L. A. 1954. Pork carcass evaluation. Mo. Agr. Exp. Sta. Res. Bul. 554.



1955

Allen, A. D., Baker, R. O., and Lasley, J. F. 1955. Milk production of sows as correlated with the performance of pigs. (Abs.) J. Anim. Sci. 14:1174.

Andresen, E. 1955. Blood groups of the pig. (Danish). Ugeskrift Landmaend. 100:555-561.

Andresen, E. 1955. Blood-type research in pigs and its possible application in animal husbandry and veterinary medicine. (Danish). Ugeskrift Landmaend. 100:571-573.

Andrews, F. N. and Whaley, R. M. 1955. Measure fat and muscle in live animal and carcass. Ind. Agr. Exp. Sta. Ann. Rept. No. 68:27-29.

Baker, Roy Oscar. 1955. Milk production of sows as correlated with performance of suckling pigs. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Berg, R. T. 1955. Sire selection with and without progeny performance records. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Blaxter, K. L. 1955. A note on the estimation of body composition of pigs. (Unpub.) Agr. Res. Council No. A.R.C. 491/55.

Bradford, G. E. 1955. Effects of inbreeding and selection and of line-crossing and topcrossing in swine. Ph.D. Thesis. Univ. of Wis. Libr. Madison.

Brady, D. E., Mullins, A. M., Tribble, L., and Lasley, J. F. 1955. A comparison of two methods of determining pork carcass cut-out value. (Abs.) J. Anim. Sci. 14:1226-1227.

Brough, O. L. and Shepherd, G. 1955. Objective grade specifications for slaughter barrow and gilt carcasses. Iowa Agr. Exp. Sta. Res. Bul. 421.

Brownfield, Derry G. 1955. A study of embryonic mortality in swine. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Bruner, W. H. 1955. A year's results of Ohio Swine Evaluation Station. (Abs.) J. Anim. Sci. 14:1262.

Clausen, H. and Gerwig, C. 1955. Pig breeding and performance testing with special reference to results of Danish tests. Schweiz. Landw. Mk. 33:449-479.

Cox, C. and Luby, P. J. 1955. Hog prices. Purdue Agr. Exp. Sta. Bul. 627.

Craft, W. A. 1955. Advancing the livestock industry through research in genetics and animal breeding. (Abs.) J. Anim. Sci. 14:295-299.

1955

Craft, W. A. 1955. Livestock improvement through research in genetics and animal breeding. *Agr. Inst. Rev. (Canada)*. Sept.-Oct. pp. 11-13

Craft, W. A. 1955. Outline for action program for testing breeding herds of swine. *Poland China World*. pp. 16, 18, 19.

Craig, J. V., Norton, H. W., Rio, P. R., Lasley, J. F. 1955. The effect of day and frequency of mating on conception rate and litter size in swine. (Abs.) *J. Anim. Sci.* 4:1178.

Craig, J. V., Notzold, R. A., Terrill, S. W., Belker, D.E., and Jansen, A. H. 1955. Results of a crossbreeding and creep feeding experiment. III. Swine Growers' Day. Apr. 7, 1955. *Univ. of Ill. Ext. Ser.* AS-421.

Damon, R. A., Jr. and Winters, Laurence M. 1955. Selection for factors of performance in the swine herds of the Hormel Foundation. *J. Anim. Sci.* 14:94-104.

Donald, H. P. 1955. Controlled heterozygosity in livestock. *Proc. Roy. Soc. B.* 144:192-203. (ABA 24 No. 238).

Dumont, B. L. 1955. Measurement of total body water of pigs by antipyrine method. (French). *Ann. Zootech.* 5:305-313.

Durham, R. M. and Zeller, J. H. 1955. Using the probing technique in selecting breeding swine on farms. (Abs.) *J. Anim. Sci.* 14:1180.

Fredeen, H. T., Bowman, G.H., and Stothart, J. G. 1955. Appraisal of certain methods for evaluation of ham quality. *Canad. J. Agr. Sci.* 35:91-94.

Fredeen, H. T., Bowman, G.H., and Stothart, J. G. 1955. Relationships between certain measurements of ham and carcass quality. *Canad. J. Agr. Sci.* 35:98.

Gawienowski, A. M., Mayer, D. T., and Lasley, J. F. 1955. The serum protein-bound iodine of swine as a measure of growth potentialities. *J. Anim. Sci.* 14:3-6.

Goodwin, R. F. W., Saison, R., and Coombs, R. R. A. 1955. The blood groups of the pig. II. Red cell iso-antibodies in the sera of pigs injected with crystal violet swine fever vaccine. *J. Comp. Path.* 65:79-92.

Green, W. W. 1955. Development of the Maryland No. 1 breed of swine. *Md. Agr. Exp. Sta. Bul.* A-79.

Grummer, R. H. and Self, H. L. 1955. Pig nutrition and sow reproductive phenomena associated with early weaning. (Abs.) *J. Anim. Sci.* 14:1245.

1955

Harrington, G. and Pomeroy, R. W. 1955. An analysis of carcass measurements of post war British bacon pigs. *J. Agr. Sci.* 45:431-451.

Heidenreich, C. J., Lasley, J. F., Brady, D. E., and Tribble, L. F. 1955. The relative importance of various live-hog measurements in predicting carcass value. (Abs.) *J. Anim. Sci.* 14:1183-1184.

Hill, E. G., England, D. C., and Young, G. A. 1955. Preweaning performance of a herd of hysterectomy-farrowed swine reared without colostrum. (Abs.) *J. Anim. Sci.* 14:1208.

Hugh, W. I. 1955. A study of the relationship between intensity of inbreeding and amount of variation in economic traits in inbred lines of Poland China swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Hunt, W. J. 1955. San Pierre - new breed of swine. *Farm Journal.* (Clipping).

Hutchinson, H. D., Jensen, A. H., Craig, J. V., Terrill, S. W., and Becker, D.E. 1955. Comparison of free choice and complete rations on pastures and dry lot. Ill. Swine Growers' Day, Apr. 7, 1955. Univ. of Ill. AS-422.

King, J.W.B. 1955. The use of testing stations for pig improvement. *Anim. Breed. Abs.* 23(4):347-356.

Kline, E. A. and Hazel, L. N. 1955. Loin area at tenth and last rib as related to leanness of pork carcasses. *J. Anim. Sci.* 14:659-663.

Lasley, Earl Loren. 1955. Prenatal mortality in swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Lasley, J.F. 1955. Effect of management on production of the meat type hog. Mo. Agr. Exp. Sta. 17th Ann. Livestock Feeders' Day. Bul. 652. pp. 17-18.

Lasley, J. F. 1955. Influence of lactation on the occurrence of estrus and breeding efficiency of brood sows. Mo. Agr. Exp. Sta. 17th Ann. Livestock Feeders' Day. Bul. 652. pp. 11-12.

Lasley, J. F. 1955. Influence of season of birth on growth rate and survival of pigs. Mo. Agr. Exp. Sta. 17th Ann. Livestock Feeders' Day. Bul. 652. pp. 9-11.

Lasley, J. F. 1955. Pork carcass cut-out value. Mo. Agr. Exp. Sta. 17th Ann. Livestock Feeders' Day. Bul. 652. pp. 18-19.

Lasley, J. F. 1955. The relationship between growth rate and certain body scores and measurements in Landrace x Poland crossbred pigs. Mo. Agr. Exp. Sta. 17th Ann. Livestock Feeders' Day. Bul. 652. pp. 13-17.

1955

Lasley, J. F. 1955. Variations in the performance of boars on individual feeding trials. Mo. Agr. Exp. Sta. 17th Ann. Livestock Feeders' Day. Bul. 652. pp. 12-13.

Maybee, H. J. 1955. Hog grading in Canada. Canad. Dept. Agr. Pub. No. 961.

McCarty, J.W. 1955. Continuous crossbreeding for market hog production. Ann. Field Day, Eureka. Sept.

McCarty, J. W. 1955. Progress in swine breeding research. 15th Ann. Anim. Hubb. Field Day Rept. May 4.

Megown, John Wm. 1955. Milk production in the sow as correlated to the rate and efficiency of gains in suckling pigs. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Muhrer, M. E., Shippen, O. F., and Lasley, J. F. 1955. The use of oxytocin for initiating parturition and reducing farrowing time in sows. (Abs.) J. Anim. Sci. 14:1250-1251.

Rathnasabapathy, V., Lasley, J. F., and Mayer, D.T. 1955. Some environmental factors affecting litter size in swine. (Abs.) J. Anim. Sci. 14:1188.

Riley, J. W., Melville, E.L., and Barker, J.S.F. 1955. Foetal maldevelopment in a litter of Large White pigs. Queensland J. Agr. Sci. 12(3):61-68.

Rio, P. R., Craig, J. V., and Norton, H.W. 1955. The association of femininity ratings with age at sexual maturity, ovulation rate and litter size in swine. (Abs.) J. Anim. Sci. 14:1188.

Robison, W. L. 1955. Crossbreeding for the production of market hogs. Duroc News. Oct. pp. 70-75, 77, 81, 92, 93.

Saison, R., Goodwin, R.F.W., and Coombs, R.R.A. 1955. The blood groups of the pig. I. The interaction of pig red cells of group A and the naturally occurring A iso-antibody in the serum of pigs of blood group O. J. Comp. Path. 65:71-78.

Self, H. L. 1955. A comparison of reproductive efficiency of sows at the first and second post-lactation heats. (Abs.) J. Anim. Sci. 14:1254-1255.

Self, H. L. 1955. The effects of some factors on blood fat levels in swine. (Abs.) J. Anim. Sci. 14:1221.

Self, H. L., Grummer, R. H., and Casida, L. E. 1955. The effect of various sequences of full and limited feeding on the reproductive phenomena in Chester White and Poland China gilts. J. Anim. Sci. 14:573-592.

1955

Sprague, L. M. 1955. Blood group homology between sheep and pigs. West. Soc. Nat. (Abs.) (Cited by Sprague, 1958.)

Stothart, J. G. and Fredeen, H. T. 1955. A new breed of bacon hogs for Canada. Agric. Inst. Rev. Ottawa. 10(4):11-13, 64.

Taylor, J. M. and Hazel, L. N 1955. The growth curve of pigs between 134 and 174 days of age. J. Anim. Sci. 14:1133-1139.

Tribble, L. F. and Pfander, W.H. 1955. Growth, feed efficiency and carcass desirability of swine as affected by level of protein, chlortetracycline (aureomycin) and feed intake. (Abs.) J. Anim. Sci. 14:1224.

Turman, E. J. and Andrews, F. N. 1955. Some effects of anterior pituitary growth hormone on swine. J. Anim. Sci. 14:7-18.

Vosloo, W. A. 1955. The Minnesota No. 1. Fmg. S. Afr. 30:467-471.

Warwick, E. J. 1955. The place of crossbreeding and inbreeding. Breeding Beef Cattle for Unfavorable Environments: A symposium presented at the King Ranch Centennial Conference. Ed. Albert O. Rhoad. Univ. of Tex. Press, Austin. pp. 133-149.

Whatley, J A., Jr. and Chambers, D. 1955. A three-line rotation topcrossing program for commercial hog production. Okla. Agr. Exp. Sta. MP-43.

Winters, L. M. 1955. Building breeds as a problem in population genetics. Breeding Beef Cattle for Unfavorable Environments: A symposium presented at the King Ranch Centennial Conference. Ed. Albert O. Rhoad. Univ. of Tex. Press, Austin. pp. 127-132.

Winters, L. M. 1955. Minnesota swine breeding research. Minn. Farm & Home Sci. May. 12(3):12-13.

1956

Allen, A.D. and Lasley, J.F. 1956. Inheritance of nipple numbers in swine and its relationship to performance. (Abs.) J. Anim. Sci. 15:1218.

Allen, Arthur Delos. 1956. The influence of heterosis and other factors on milk production of sows and performance in pigs. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Anon. 1956. Pork marketing margins and costs. USDA - AMS MP-711.

Baker, L. N., Self, H. L., Chapman, A. B., Grummer, R. H., and Casida, L. E. 1956. Interrelationships of factors affecting litter size and fetus weight and development in swine. (Abs.) J. Anim. Sci. 15:1227.

Bean, H. W. 1956. Nomographic adjustment of the weights of Illinois swine herd improvement association litters. (Abs.) J. Anim. Sci. 15:1307.

Berg, R. T. and Bowland, J. P. 1956. Measurements of backfat on the live hog. Pr. Bul. Alberta Univ. Ext. Dept. 41(2):21-22.

Berge, S. 1956. The significance of the phenomenon of heterosis and environmental conditions, particularly that of climate on the quality of pig meat. Proc. 7th Int. Cong. Anim. Husb. Madrid. Subj. 1:105-114.

Bolick, G. M., Stewart, H. A., and Dilliard, E. V. 1956. Comparison of a three-breed rotational crossbreeding program with an inbred and outbred population in swine. (Abs.) J. Anim. Sci. 15:1222-1223.

Bowman, G.H. 1956. An appraisal of certain sources of environmental variation in the productivity of Yorkshire sows. M.S. Thesis.

Brady, D. E., Zobrisky, S. E., Mullins, A. M. 1956. Differential tissue development in hams during growth of swine. (Abs.) J. Anim. Sci. 15:1271-1272.

Carmon, J. L., Stewart, H. A., Cockerham, C. C., and Comstock, R. E. 1956. Prediction equations for rotational crossbreeding. J. Anim. Sci. 15:930-936.

Cole, C. L. 1956. The interaction of breeding and levels of nutrition in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Craig, J. V., Norton, H. W., and Terrill, S. W. 1956. A genetic study of weight at five ages in Hampshire swine. J. Anim. Sci. 15:242-256.

DePape, J. G. and Whatley, J. A., Jr. 1956. Live hog probes at various sites, weights, and ages as indicators of carcass merit. J. Anim. Sci. 15:1029-1035.

1956

Dettmers, A. 1956. Breeding a new "experimental animal", the miniature pig, in America. *Z. Tierz Zücht. Biol.* 68:37-41.

Engelman, G. 1956. Trends behind the hog situation. N.C. Reg. Meat Type Hog Workshop, Columbus, Ohio, May 7, 1956.

Foley, Charles William. 1956. The influence of the sire on the performance and carcass quality of his progeny. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Foote, W.C., Waldorf, D. P., Chapman, A. B., Self, H. L., Grummer, R. H., and Casida, L. E. 1956. Age at puberty of gilts produced by different systems of mating. *J. Anim. Sci.* 15:959-969.

Foote, W. C., Waldorf, D. P., Self, H. L., and Casida, L. E. 1956. The effect of gonadal hormones on the gonadotropic potency of the pituitary and on simultaneous ovarian changes in the gilts. (Abs.) *J. Anim. Sci.* 15:1303.

Fredeen, H. T. 1956. Inbreeding and swine improvement (Review). *Anim. Breed. Abs.* 24(4):317-326.

Fredeen, H. T. and Lambroughton, D. B. 1956. Evaluation of carcass quality in swine as influenced by differential performance of barrows and gilts. *Canad. J. Agr. Sci.* 36:435-444.

Garwood, V. A. 1956. A comparison of inbred lines, two-line-crosses, three-line-crosses, rotational line crosses and outbreds within the Duroc breed of swine. Ph.D. Thesis. Univ. of Nebr. Libr. Lincoln.

Gibson, James O., Jr. 1956. The relationship of certain live hog scores and measurements to traits associated with carcass merit. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Goodwin, R.F.W. and Coombs, R.R.A. 1956. The blood groups of the pig. IV. The A antigen-antibody system and haemolytic disease in new-born piglets. *J. Comp. Path.* 66:317-331.

Hansard, S. L. 1956. Residual organ blood volume of cattle, sheep, and swine. *Soc. Expt. Biol. Med.* 91:31.

Harvey, W. R. and Graybill, F. A. 1956. Estimation of genic variance in inbred populations. (Abs.) *J. Anim. Sci.* 15:1214-1215.

Hetzer, H. O. and Zeller, J. H. 1956. Selection for high and low fatness in Duroc and Yorkshire swine. (Abs.) *J. Anim. Sci.* 15:1215.

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1956

Hetzer, H. O., Zeller, J.H., and Hankins, O. G. 1956. Carcass yields as related to live hog probes at various weights and locations. J. Anim. Sci. 15:257-270.

Hugh, William. 1956. A study of the relationship between intensity of inbreeding and amount of variation in economic traits in inbred lines of Poland China swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Hughes, C. E. 1956. Meat-type hogs. Armour's Analysis. 5(4). Aug-Oct.

Irwin, M. R. 1956. Blood grouping and its utilization in animal breeding. (Review). Proc. VII Int. Cong. Anim. Husb. Madrid. Subj. 2:7-41.

Joubert, D. M. 1956. An analysis of factors influencing post-natal growth and development of the muscle fiber. J. Agr. Sci. 47:59-102.

King, J.W.B. 1956. Slaughter losses and yield of Wiltshire bacon. J. Agr. Sci. 47:23-28.

Kliesch, J. and Bankwitz-Siber, E. 1956. X-ray studies on the relation between body length, number and size of vertebrae in piglets 7-10 days of age. Zuchungskunde. 28:208.

Lasley, E. L., Hazel, L. N., and Kline, E. A. 1956. Predicting lean cuts from live hog and easily measured carcass traits. (Abs.) J. Anim. Sci. 15:1268.

Lasley, E. L. and Kline, E. A. 1956. Splitting and cutting errors in swine carcass evaluation. (Abs.) J. Anim. Sci. 15:1268.

Lucas, I.A.M. 1956. The influence of physical environment upon the growth and carcass quality of pigs. Proc. 7th Int. Cong. Anim. Husb. Madrid. Subj. 1:71-98.

Lucas, I.A.M. and Calder, A.F.C. 1956. The response of different types of pigs to varying levels of feeding from weaning to bacon weight, with particular reference to carcass quality. J. Agr. Sci. 47:287-___.

Lush, J. L. 1956. Recent advances in animal breeding. Proc. Western Sect., Amer. Soc. Anim. Prod., Reno, Nevada. pp. 20-21.

McCarty, J. W. 1956. Continuous crossbreeding for market hog production. Ann. Conference, Newell Station. Jan.

Mueller, C. D. 1956. Tables for coefficients of inbreeding in animals. Kan. Agr. Exp. Sta. Tech. Bul. 80.

1956

Neimann-Sorensen, A. 1956. Blood groups and breed structure as exemplified by three Danish breeds. *Acta Agric. Scand.* 6:115-137.

Neimann-Sorensen, A., Sorensen, P. H., Andresen, E., and Moustgaard, J. 1956. Danish investigation on blood groups of cattle and pigs. *Proc. VII Int. Cong. Anim. Husb.* Madrid. *Subj.* 2:87-111 (ABA 24 No. 1454).

Odriozola, M. 1956. The significance of the phenomenon of heterosis and of environmental conditions, especially that of climate on the quality of pig carcasses. *VII Int. Cong. Anim. Husb.* Madrid. *Subj.* 1:7-62.

Pearson, A.M., Bratzler, L. J., Deans, R. J., Price, J. F., Hoefer, J. A., Reineke, E. P., and Luecke, R.W. 1956. The use of specific gravity of certain untrimmed pork cuts as a measure of carcass value. *J. Anim. Sci.* 15:86-92.

Pearson, A. M., Bratzler, L. J., Hoefer, J. A., Price, J. F., Magee, W. T., and Deans, R. J. 1956. The fat-lean ratio in the rough loin as a tool in evaluation of pork carcasses. *J. Anim. Sci.* 15:896-901.

Pearson, A. M., Price, J. F., Bratzler, L. J., Magee, W. T., and Hoefer, J. A. 1956. A comparison of the live probe and lean meter for predicting carcass measurements of swine. (Abs.) *J. Anim. Sci.* 15:1270-1271.

Perry, J. S. and Pomeroy, R. W. 1956. Abnormalities of the reproductive tract of the sow. *J. Agr. Sci.* 47:238.

Rathnasabapathy, V. 1956. Some genetic and environmental factors affecting litter size in swine. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

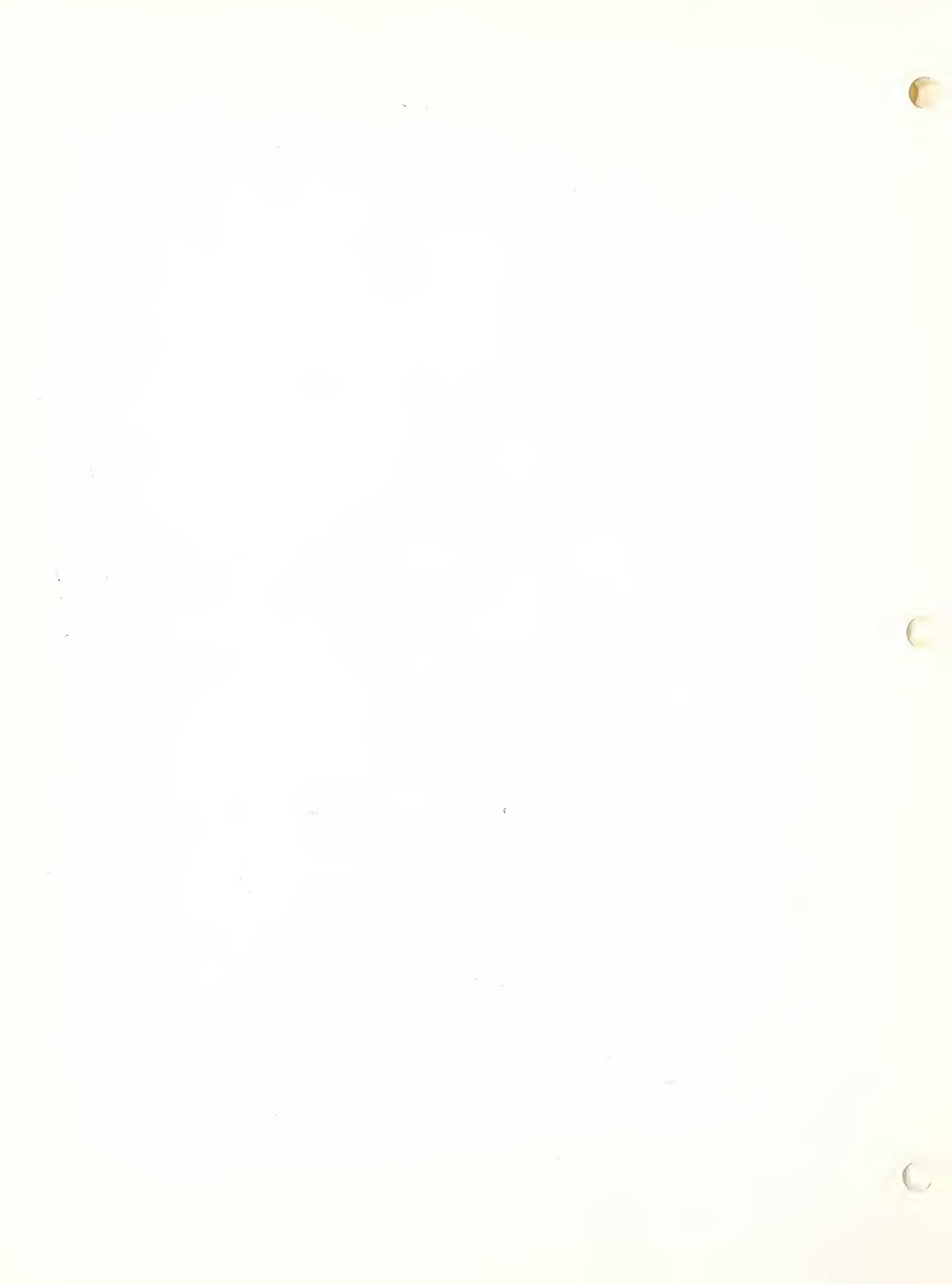
Rathnasabapathy, V., Lasley, J. F., and Mayer, D. T. 1956. Genetic and environmental factors affecting litter size in swine. Mo. Agr. Exp. Sta. Res. Bul. 615.

Reddy, Balakrishma. 1956. Heterosis and some genetic aspects of family selection in swine. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Reddy, V. B. and Lasley, J. F. 1956. Heritability of differences in two economically important traits in swine. (Abs.) *J. Anim. Sci.* 15:1218.

Sammelwitz, P. H., Dziuk, P. J., and Nalbandov, A. V. 1956. Effects of progesterone on embryonal mortality of rats and swine. (Abs.) *J. Anim. Sci.* 15:1211-1212.

Self, H. L., Bray, R. W., and Reierson, R. J. 1956. A study of factors associated with merit in swine carcasses and pork cuts. (Abs.) *J. Anim. Sci.* 15:1273.



1956

Self, H. L. and Grummer, R. 1956. Artificial insemination of swine. Wis. Agr. Exp. Sta., Madison. Jan. Pamphlet.

Spalding, J. F. and Berry, R. O. 1956. A chromosome study of the wild pig (*Pecari angulatus*) and the domestic pig (*Sus scrofa*). *Cytologia*. Tokyo. 21:81-84.

Speer, V. C., Lasley, E. L., Ashton, G. C., Hazel, L. N., and Catron, D. V. 1956. Protein levels for growing boars on pasture vs. concrete drylot. (Abs.) *J. Anim. Sci.* 15:1213.

Szabo, S., Szent-Ivanyi, T., and Székely, A. 1956. Hemolytic disease of newborn pigs. *Acta vet. Acad. Sci. Hung.* 6:313-331.

Tribble, L. F., Pfander, W. H., Lasley, J. F., Zobrisky, S. E., and Brady, D. E. 1956. Factors affecting growth, feed efficiency and carcass in swine. Mo. Agr. Exp. Sta. Res. Bul. 609.

Waldorf, D. P., Foote, W. C., Self, H. L., Chapman, A. B., and Casida, L. E. 1956. Factors affecting fetal pig weight late in gestation. (Abs.) *J. Anim. Sci.* 15:1226-1227.

Whatley, J. A., Jr. 1956. Heritability of carcass traits. Hamp. Type Conf., Jan. 13-14, 1956. Stillwater.

Whatley, J. A., Jr. 1956. Heritability in hogs. Amer. Hamp. Herdsman. June. pp. 32, 34.

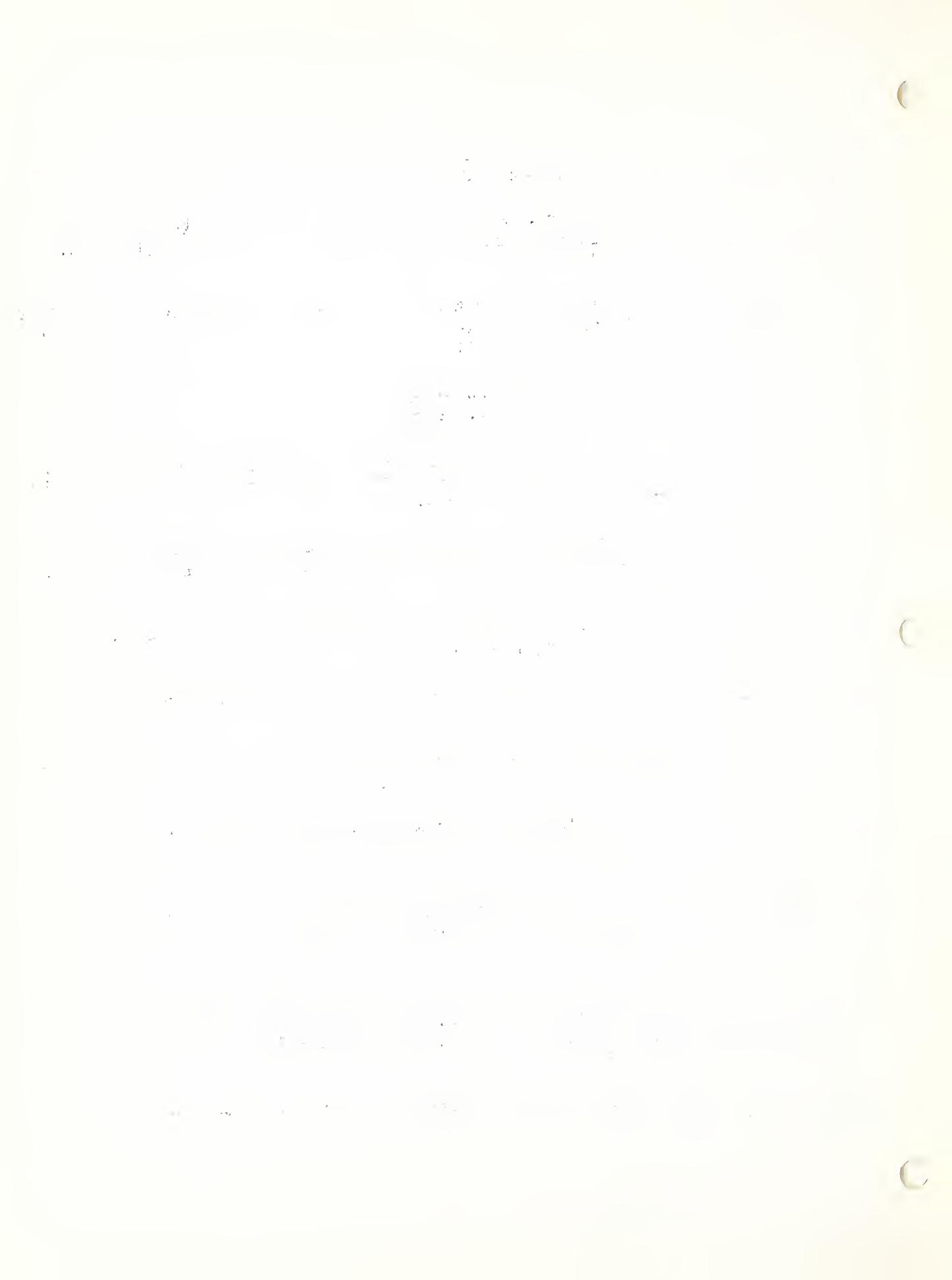
Whatley, J. A., Jr. 1956. Meat-type in hogs and how to get it. Progressive Farmer. Tex. Ed. 71(3):79-80. Mar.

Whatley, J. A., Jr. 1956. Performance testing boar pigs for rate of gain, efficiency of gain and backfat thickness. Third Ft. Reno Sheep and Swine Day Rept. Jan. 19.

Whatley, J. A., Jr. 1956. Probe backfat measurements of the live hog as an indication of carcass merit. Okla. Agr. Exp. Sta. Ann. Livestock Feeders' Day Rept. MP-45:11-16.

Whatley, J. A., Jr., Gibson, J. O., Glenn, J. C., and Hillier, J. C. 1956. Relation of certain live animal and carcass scores and measurements to swine carcass value. Proc. So. Agr. Workers Assn. Feb. 7, 1956. Atlanta. 53:78.

Winters, L. M. 1956. Swine breeding for tomorrow. Minn. Farm & Home Sci. 13(3):3-4. May.



1957

Addleman, Henry Eugene. 1957. Stress and the leucocytic response in swine. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Allen, A. D., Lasley, J. F., and Uren, A. W. 1957. The effects of gonadotrophic hormone injections on induction of estrus in lactating sows. (Abs.) J. Anim. Sci. 16:1097-1098.

Andresen, E. 1957. Investigations on blood groups of the pig. Nord. Veterinarmed. 9:274-284.

Anon. 1957. The meat-type hog. USDA Leaflet 429.

Anon. 1957. Report of the meeting on pig progeny testing in Europe. FAO/EAAP Meeting on Pig Progeny Testing. July 8-13, 1957. Copenhagen. FAO No. 1957/16, EAAP No. 1957/930.

Bishop, G.R.H. 1957. Inbred pigs - Findings from current experiments. The Agricultural Review. Aug.

Bowland, J. P. and Hironaka, R. 1957. Relationship of plasma liquid level to carcass quality and rate of gain in swine. J. Anim. Sci. 16:62-67.

Braude, R., Mitchell, K. G., and Harrington, G. 1957. Carcass length measurement in bacon pigs. J. Agr. Sci. 49:357-360.

Christian, R. E. 1957. The relative emphasis placed on components of a selection index under two nutritional environments. J. Anim. Sci. 16:349-356.

Claus, A. 1957. The measurement of natural interfaces in the pig's body with ultra-sound. Fleischwirtschaft. 9:552.

Clausen, H. 1957. The possibility of standardization of pig progeny testing in western Europe. FAO/EAAP Meeting on Pig Progeny Testing. July 8-13, 1957. Copenhagen. FAO No. 1957/16, EAAP No. 1957/930.

Clausen, H. and Gerwig, C. 1957. Provisional working paper on pig breeding, pig recording, and pig progeny testing in northern, western, and southern European countries. FAO/EAAP Meeting on Pig Progeny Testing. July 8-13, 1957. Copenhagen. FAO No. 1957/16, EAAP No. 1957/930.

Cooksey, J.H. 1957. Relationship of live hog measurements at 154-days of age with measures of carcass quality. M.S. Thesis. Univ. of Wis. Libr. Madison.

Craft, W. A. 1957. IV. Genetic aspects of hog carcass traits. Proc. Ninth Research Conference, Council on Research, Amer. Meat Institute, Univ. of Chicago. Mar. 22-23, 1957. 9:83-88.

1957

Day, B. N., Hazel, L. N., Anderson, L. L., Melampy, R. M. 1957. The effect of FSH and Estradiol Benzoate on induced estrus in gilts. (Abs.) J. Anim. Sci. 16:1104.

Dumont, B. L. 1957. New methods of estimating carcass quality in pigs. FAO/EAAP Meeting on Pig Progeny Testing, July 8-13, 1957. Copenhagen. FAO No. 1957/16, EAAP No. 1957/930.

Dumont, B. L. and Fevier, R. 1957. Method of x-ray measurement of the backfat thickness of pigs. (French). Ann. Zootech. 6:29-40.

Durham, R. M. and Hazel, L. N. 1957. Studies of buyer preferences in purchasing boars of known merit. (Abs.) J. Anim. Sci. 16:1048-1049.

Enfield, Frank. 1957. Heritability of carcass length, carcass backfat thickness, and loin lean area in swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Fredeen, H. T. 1957. Crossbreeding and swine production. Anim. Breed. Abs. 25(4):339.

Fredeen, H. T. and Jonsson, P. 1957. Genetic variance and covariance in Danish Landrace swine as evaluated under a system of individual feeding of progeny test groups. Z. Tierz. U. Zuchtbiol. 70(4):348-363.

Gaines, J. A. 1957. Differences in litter size and growth rate among purebred and crossbred swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Gaines, J. A. and Hazel, L. N. 1957. Differences in litter size and growth rate among purebred and crossbred swine. (Abs.) J. Anim. Sci. 16:1066-1067.

Gatherum, D. P. 1957. Changes in carcass measurements of the bacon pig during processing. J. Agr. Sci. 49:214-219.

Hammond, J. 1957. The growth of the pig. I. What is required for bacon. Pig Prog. July.

Hammond, J. 1957. The growth of the pig. II. Changes in body proportions. Pig Prog. Aug.

Hammond, J. 1957. The growth of the pig. III. Effect of feeding methods. Pig Prog. Sept.

Heidenreich, Charles John. 1957. Carcass evaluation in the live hog. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.



1957

Hellberg, A. 1957. The possibility of attaining a surer quality evaluation. FAO/EAAP Meeting on Pig Progeny Testing. July 8-13, 1957. Copenhagen. FAO No. 1957/16, EAAP No. 1957/930.

Holland, L. A. 1957. Relationship of live measurements and swine carcass characteristics. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Jonsson, Per. 1957. Estimation of heritabilities and genetic and phenotypic correlations in the Danish Landrace pig. M.S. Thesis. Iowa State Coll. Libr. Ames.

King, J.W.B. 1957. The heritability of carcass traits in British bacon pigs. Proc. Brit. Soc. Anim. Prod. 1957:49-69.

King, J. X., Zeller, J. H., Hetzer, H. O., and Harvey, W. R. 1957. Further studies on the use of the probing technique in selecting breeding swine on farms. (Abs.) J. Anim. Sci. 16:1050.

Kliesch, J., Neuhaus, U., Silber, E., and Kostzewske, H. 1957. Studies of the measurement of fat thickness of live animals with the help of ultrasound. Z. Tierz. Zucht. Biol. 70:29.

Kristjansson, F. K. 1957. Observations on genotype-environment interaction in swine. Canad. J. Anim. Sci. 37:179-184.

Lasley, E. L. 1957. Ovulation, prenatal mortality and litter size in swine. J. Anim. Sci. 16:335-340.

Lasley, E. L. and Kline, E. A. 1957. Splitting and cutting errors in swine carcass evaluation. J. Anim. Sci. 16:485-489.

Lasley, J. F., Tribble, L. F., and Rathnasabapathy, V. 1957. Evaluation of a scoring system for meat type hogs. Mo. Agr. Exp. Sta. Res. Bul. 627.

Lauprecht, E., Schepers, J., and Schroder, J. 1957. Measuring the backfat thickness of live pigs with echo-ranging techniques. Mitt. Dtsch. Landw. Ges. 72:881.

Lerner, E. H., Mayer, D. T., and Lasley, J.F. 1957. Early embryonic mortality in strain crossed gilts. Mo. Agr. Exp. Sta. Res. Bul. 629.

Loy, R. G., McShan, W. H., Self, H. L., and Casida, L. E. 1957. Number, weight, and progesterone content of corpora lutea in pregnant gilts. (Abs.) J. Anim. Sci. 16:1113-1114.

McCarty, J. W. 1957. South Dakota Station swine breeding project variation - always present and useful. S. Dak. State Coll. Swine Field Day. Sept. 19. (Mimeo).

1957

McCarty, J. W. 1957. "Swine breeding and feeding" fifty years of agricultural research at the USDA Newell (S.D.) Field Station. ARS 41-15, p. 37. July.

Miller, C. O., Quesenberry, J. R., Zeller, J. H., Flower, A. E., and Willson, F. S. 1957. The Montana No. 1 hog. Mont. Agr. Exp. Sta. Bul. 528.

Munson, A. W. 1957. Relationship of carcass measurements and production factors in swine. M.S. Thesis. Iowa State Coll. Libr. Ames.

Naive, J. J. and Cox, C. B. 1957. Accuracy of estimating live grades and dressing percentages of slaughter hogs. Purdue Univ. Agr. Exp. Sta. Bul. SB-650.

Nichols, J. E. 1957. Livestock improvement. 4th ed. Edinburgh.

Noffsinger, T. L. 1957. Growth patterns within some inbred lines of Chester White and Yorkshire breeds of swine. M.S. Thesis. Purdue Univ. Libr. Lafayette.

Ollivier, Louis. 1957. Breed differences in growth rate as related to carcass characteristics in swine. M.S. Thesis. Iowa State Coll. Libr. Ames.

Orme, L. E., Pearson, A. M., Bratzler, L. J., and Magee, W. T. 1957. Specific gravity as an objective measure of marbling. (Abs.) J. Anim. Sci. 16:1073-1074.

Panier, C. 1957. Ultrasonics for the determination of state of fatness of hogs. Revue De L'Agriculture. 10:482.

Pearson, A. M. 1957. Measures of muscling in pork carcasses. Proc. 10th Ann. Recip. Meats Conf. pp. 139-144.

Pearson, A. M., Price, J. F., Hoefer, J. A., Bratzler, L. J., and Magee, W. T. 1957. A comparison of the live probe and lean meter for predicting various carcass measurements of swine. J. Anim. Sci. 16:481-484.

Pfander, W. H. and Tribble, L. F. 1957. Amino acid composition of swine rations and amino acid requirements of weanling pigs. Mo. Agr. Exp. Sta. Res. Bul. 626.

Price, J. F., Pearson, A. M., and Benne, E. J. 1957. Specific gravity and chemical composition of the untrimmed ham as related to leanness of pork carcasses. J. Anim. Sci. 16:85-92.

Quesenberry, J. R. 1957. Research at the U.S. Range Livestock Experiment Station. USDA - ARS Cir. 216.

1957

Reddy, V. Balakrishma. 1957. Some genetic aspects of fertility and an experimental modification of the intra-uterine environment. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Rendel, J. 1957. Blood groups of farm animals. (Review). Anim. Breed. Abs. 25(3):223-238.

Rice, V. A., Andrews, F. N., Warwick, E. J., and Legates, J. E. 1957. Breeding and Improvement of Farm Animals. 5th ed. McGraw Hill Book Co., N.Y.

Robison, O. W. 1957. Relationship of live hog measurements at slaughter with measures of carcass merit. M.S. Thesis. Univ. of Wis. Libr. Madison.

Robison, O. W., Cooksey, J.H., Chapman, A. B., and Self, H. L. 1957. Relationships of measurements at 154 days with carcass merit of swine slaughtered at 205 to 225 pounds. (Abs.) J. Anim. Sci. 16:1065-1066.

Self, H. L. 1957. VI. The problem of pork odor. Proc. Ninth Research Conference, Amer. Meat Institute, Univ. of Chicago. pp. 53-59.

Self, H.L., Bray, R. W., and Reierson, R. J. 1957. Lean cut yield and an evaluation of hams and loins of U.S.D.A. pork carcass grades. J. Anim. Sci. 16:642-653.

Smith, C., Durham, R. M., Musson, A. W., Lasley, E. L., and Kline, E. A. 1957. The defatted ham as an indicator of hog carcass value. (Abs.) J. Anim. Sci. 16:1072.

Speer, V. C., Lasley, E. L., Ashton, G. G., Hazel, L. N., and Catron, D. V. 1957. Protein levels for growing boars on pasture and concrete drylot. J. Anim. Sci. 16:607-611.

Spies, H. G., Self, H. L., and Casida, L. E. 1957. Histological structure and progesterone content of swine corpora lutea as affected by exogenous progesterone. (Abs.) J. Anim. Sci. 16:1098.

Sumption, L. J. 1957. An analysis of the early development of the Minnesota No. 3 inbred line of swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Sumption, L. J., Peo, E. R., Jr., Hudman, D. B., Adams, C. H., Young, G. A., Underdahl, N. R., Kelley, G. W., and Grace, O. D. 1957. Breeding studies with "disease free" swine. Prog. Rept. 356. 22nd Ann. Swine Rooters' Day, Univ. of Nebr.

Sumption, L. J., Rempel, W. E., and Winters, L. M. 1957. Early development of the Minnesota No. 3 line of swine. (Abs.) J. Anim. Sci. 16:1049-1050.

1957

Waldorf, D. P. 1957. The relation of certain factors in the maternal environment to fetal growth in swine. Ph.D. Thesis. Univ. of Wis. Libr. Madison.

Waldorf, D. P., Foote, W. C., Self, H. L., Chapman, A. B., Casida, L. E. 1957. Factors affecting fetal pig weight late in gestation. J. Anim. Sci. 16:976-985.

Whatley, J. A., Jr. and Enfield, Frank D. 1957. Heritability of carcass length, carcass backfat thickness and loin lean area in swine. (Abs.) J. Anim. Sci. 16:1066.

Whatley, J. A., Jr., Palmer, J. B., Chambers, Doyle, and Stephens, D. F. 1957. The value of water sprinklers for cooling pregnant sows during the summer. Okla. Agr. Exp. Sta. MP-48:2-4.

Zimmerman, D.R., Self, H. L., and Casida, L. E. 1957. The effect of flushing for various lengths of time on the ovulation rate of Chester White and Chester White-Poland China crossbred gilts. (Abs.) J. Anim. Sci. 16:1099-1100.

Zobriskys, S. E. 1957. Physical composition of swine during growing and fattening. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

1958

Allen, A. D. and Lasley, J. F. 1958. The location of mammae on the sow in relation to suckling preference of pigs. (Abs.) *J. Anim. Sci.* 17:1223.

Anderson, L. L., Day, B. N., Emmerson, M. A., Hazel, L. N., and Melampy, R. M. 1958. Effect of estrogen and progesterone on early embryonic mortality in ovariectomized gilts. (Abs.) *J. Anim. Sci.* 17:1234-1235.

Andresen, E. 1958. Blood group factors in swine and their inheritance. (Danish). VIII. *Nordiska Veterinarmotet.* Sect. B. Rept. 24.

Andresen, E. 1958. Gene frequencies in pigs of the Danish Landrace breed. (English Summary). pp. 197-199. *Ann. Rept. Roy. Veter. and Agr. Coll. Sterility Res. Institut.* A/S Carl Fr. Mortensen, Copenhagen.

Andrews, F. N. 1958. Fifty years of progress in animal physiology. *J. Anim. Sci.* 17:1065-1078.

Baker, L. N., Chapman, A. B., Grummer, R. H., Casida, L. E. 1958. Some factors affecting litter size and fetal weight in purebred and reciprocal-cross matings of Chester White and Poland China swine. *J. Anim. Sci.* 612-621.

Bond, T. E., Kelley, C. F., and Heitman, H. 1958. Improving livestock environment in high temperature areas. The effects of climate on animal performance. *J. Hered.* 49(2):75-79.

Bradford, G. E., Chapman, A. B., and Grummer, R. H. 1958. Effects of inbreeding, selection, linecrossing, and topcrossing in swine. I. Inbreeding and selection. *J. Anim. Sci.* 17:426-440.

Bradford, G. E., Chapman, A. B., and Grummer, R. H. 1958. Effects of inbreeding, selection, linecrossing and topcrossing in swine. II. Linecrossing and topcrossing. *J. Anim. Sci.* 17:441-455.

Bradford, G. E., Chapman, A. B., and Grummer, R. H. 1958. Effects of inbreeding, selection, linecrossing and topcrossing in swine. III. Predicting combining ability and general conclusions. *J. Anim. Sci.* 17:456-467.

Briskey, E. J., Kowalczyk, T., Blackmon, W. E., Breidenstein, B. B., Bray, R. W., and Grummer, R. H. 1958. Porcine musculature-topography. *Wis. Agr. Exp. Sta. Res. Bul.* 206.

Brown, William Glynn, Jr. 1958. Testing boars for feed lot performance and probe backfat thickness. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

1958

Bruner, W. H., Cahill, V. R., Robison, W. L., and Wilson, R. F. 1958. Performance of barrow and gilt littermate pairs at the Ohio Swine Evaluation Station. *J. Anim. Sci.* 17:875-878.

Cantwell, G. E., Johnston, E. F., and Zeller, J. H. 1958. The sex chromatin of swine intersexes. *J. Hered.* 49:199-202.

Charette, L. A. 1958. Effects of sex and age of male castration on growth and carcass quality in Yorkshire swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Chung, C. S. and Chapman, A. B. 1958. Comparisons of the predicted with actual gains from selection of parents of inbred progeny of rats. *Genetics.* 43(4):594-600.

Clausen, H. and Gerwig, C. 1958. Pig breeding, recording, and progeny testing in European countries. FAO U.N. Agr. Studies No. 44. Rome.

Cobb, E.H. 1958. Comparative performance of purebred and crossbred swine on Pennsylvania farms. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Comstock, R.E. and Rempel, W. E. 1958. Swine breeding: Past, present, future. *Minn. Farm & Home Sci.* 15(3):19, 23.

Cooper, R. J. 1958. Muscle development in two genetic groups of swine as influenced by the amount of feed and length of feeding. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Craft, W. A. 1958. Fifty years of progress in swine breeding. *J. Anim. Sci.* 17:960-980.

Craft, W. A. 1958. Investigations relating to forming and using inbred lines of swine in the United States Regional Swine Breeding Laboratory. *Proc. 8th Pac. Sci. Cong., Pac. Sci. Assn.* IV. B:411-422.

Craft, W. A. 1958. Regional Swine Breeding Laboratory. Report of progress. *N.C. Agr. Exp. Sta. Dir. Spr. Meet.* Mar. 18-20.

Day, B. N., Anderson, L. L., Hazel, L. N., and Melampy, R. M. 1958. Pituitary gonadotrophins in swine during the estrus cycle and pregnancy. (Abs.) *J. Anim. Sci.* 17:1233.

Day, B. N., Anderson, L. L., Hazel, L. N., and Melampy, R. M. 1958. Synchronization of estrus and ovulation in swine. (Abs.) *J. Anim. Sci.* 17:1235.

1958

Dean, B. T., Reddy, V. B., Lasley, J. F., and Tribble, L. F. 1958. Effect of condition on reproduction in swine. (Abs.) J. Anim. Sci. 17:1211-1212.

Dzuik, P. J. 1958. Dilution and storage of boar semen. J. Anim. Sci. 17:548-553.

Dzuik, P. J. 1958. Effect of artificial insemination of gilts with semen stored for 1/2 hour vs. 72 hours. (Abs.) J. Anim. Sci. 17:1214.

Foote, W. C., Waldorf, D. P., Self, H. L., and Casida, L. E. 1958. Some effects of progesterone and estradiol on the ovarian structures and on the gonadotrophic potency of the pituitary gland of the gilt. J. Anim. Sci. 17:534-539.

Fredeen, H. T. 1958. Radiographic studies of the vertebral column of swine. Proc. Canad. Soc. Anim. Prod. pp. _____.

Fredeen, H. T. 1958. Selection and swine improvement. Anim. Breed. Abs. 26 (3):229-241.

Gaines, J. A., Thomas, H. R., Carter, R. C., and Kincaid, C. M. 1958. Swine breeding. Tidewater Research Station, 1949-1956. Va. Agr. Exp. Sta. Bul. 499.

Green, W. W. 1958. Genetic and other factors affecting pre-weaning performance of Maryland No. 1 swine. Md. Agr. Exp. Sta. Bul. A-90.

Guyer, P. Q. and Sumption, L. J. 1958. More profit through systematic cross-breeding of swine. Nebr. Agr. Exp. Sta. Ext. Cir. 58:201.

Harrington, G. 1958. Determining the fatness of live pigs. Agr. Rev. (Lond.) 3(11):20.

Harrington, G. 1958. Pig carcass evaluation. Commonwealth Bureau of Anim. Breeding and Genetics. Edinburgh. Tech. Communication No. 12.

Hazel, L. N. 1958. Crossbreeding for commercial hog production. Ill. Swine Growers' Day, Apr. 2, 1958. Univ. of Ill. Anim. Sci. Dept. Mimeo. AS-481.

Hazel, L. N. and Durham, R. 1958. Breeding for greater production and quality. Iowa Swine Breeders' Dir. 1958/59. pp. 18-21.

Hetzer, H. O., Zeller, J. H., and Hiner, R. L. 1958. Three generations of selection for high and low fatness in Duroc swine. (Abs.) Proc. Internat'l. Cong. Genetics. (Montreal). Abs. II:119-120.

1958

Holland, L. A. and Hazel, L. N. 1958. Relationship of live measurements and carcass characteristics of swine. *J. Anim. Sci.* 17:825-833.

Johnston, E. F., Zeller, J. H., and Cantwell, G. 1958. Sex anomalies in swine. *J. Hered.* 49:255-261.

Jonsson, P. 1958. Estimates of heritabilities and genetic and phenotypic correlations of certain production characters in the Danish Landrace pig. *Acta Agric. Scand.* 8(1):88-105.

Kelley, G. W., Jr., Olsen, L. S., Sumption, L. and Adams, J. C. 1958. Field evaluation of Hygromycin B as an ascaride in swine. *Vet. Med.* 53:120-126.

Kulwich, R., Feinstein, L., and Anderson, E. C. 1958. Correlation of potassium 40 concentration and fat free lean content of hams. *Sci.* 127:338-339.

Lasley, E. L. 1958. Swine breeding. *Amer. Landrace.* 7(4):36-37; (5):30-31.

Lasley, J. F. and Tribble, L. F. 1958. The influence of breeding methods on performance in swine. *Ann. Livestock Day Rept.*, Univ. of Mo. Sept. 5, 1958.

Loy, R. G., McShan, W. H., Self, H. L., and Casida, L. E. 1958. Interrelations of number, average weight and progesterone content of corpora lutea in swine. *J. Anim. Sci.* 17:405-409.

Lu, K. H., Winters, L. M., Aunan, W. J., and Rempel, W. E. 1958. Estimating the percentage of lean and fat in swine carcasses. *Minn. Agr. Exp. Sta. Tech. Bul.* 224.

McBride, G. 1958. The environment and animal breeding problems. (Review). *Anim. Breed. Abs.* 26:349-358.

McCarty, J. W. 1958. Boar-progeny performance differences. *S. Dak. State Coll. Swine Field Day*, Sept. 11. (Mimeo).

Noland, P. R., Gifford, W., and Baugus, C. A. 1958. Rational crossbreeding of swine. *Ark. Farm Res.* 7(4):3. July/Aug.

Orme, L. E., Pearson, A. M., Bratzler, L. J., and Magee, W. T. 1958. Specific gravity as an objective measure of marbling. *J. Anim. Sci.* 17:693-698.

Osinska, Z. 1958. Eye of loin as an index of leanness of bacon carcasses. (Polish). *Roczn. Nauk. rol.* 73-B:33.



1958

Osinska, Z., Durham, R. M., and Hazel, L. N. 1958. An analysis of swine breed differences in size and shape of loin eye. (Abs.) J. Anim. Sci. 17:1136.

Osinska, Z. and Kielanowski, J. 1958. Dissection and measurement areas in swine carcass evaluation. (Polish). Roczn. Nauk. rol. 73-B:1.

Osinska, Z. and Kielanowski, J. 1958. Methods for estimating fat and lean content in bacon carcasses. Part II. Roczn. Nauk. rol. 73-B:9.

Pearson, A. M., Bratzler, L. J., and Magee, W. T. 1958. Some simple cut indices for predicting carcass traits of swine. I. Cut out and loin lean area. J. Anim. Sci. 17:20-26.

Pearson, A. M., Bratzler, L. J., and Magee, W. T. 1958. Some simple cut indices for predicting carcass traits of swine. II. Supplementary measures of leanness. J. Anim. Sci. 17:27-33.

Price, J. F., Pfost, H. B., Pearson, A. M., and Hall, C. W. 1958. Some observations on the use of ultrasonic measurements for determining fatness and leanness in live animals. (Abs.) J. Anim. Sci. 17:1156.

Reddy, V. B., Lasley, J. F., and Mayer, D. T. 1958. Genetic aspects of reproduction in swine. Mo. Agr. Exp. Sta. Res. Bul. 666.

Reddy, V. B., Mayer, D. T., and Lasley, J. F. 1958. Hormonal modification of the intra-uterine environment in swine and its effect on embryonic viability. Mo. Agr. Exp. Sta. Res. Bul. 667.

Reimer, D., Comstock, R. E., Rempel, W. E., and Salmela, A. B. 1958. Genetic correlations between growth rate and efficiency of feed utilization in swine. (Abs.) J. Anim. Sci. 17:1137-1138.

Rempel, W. E. 1958. The inbred livestock registry association. Wash. State Coll. Dept. Anim. Sci. Stockmen's Handbook. pp. 50-51.

Rempel, W. E. 1958. Resume of Minnesota swine breeding research. Wash. State Coll. Dept. Anim. Sci. Stockmen's Handbook. pp. 63-66.

Rempel, W. E. 1958. Seed stock production in swine. Wash. State Coll. Dept. Anim. Sci. Stockmen's Handbook. p. 58.

Rempel, W. E. 1958. The use of inbred lines for commercial production. Wash. State Coll. Dept. Anim. Sci. Stockmen's Handbook. pp. 52-53.

Rio, P. R. 1958. Genetic interpretation of heterosis and maternal effects in reproduction and growth in swine. Ph.D. Thesis. Univ. of Ill. Libr. Urbana.



1958

Saffle, L. E., Orme, L. E., Sutton, D. D., Ulrey, D. E., and Pearson, A. M. 1958. A comparison of urinary and blood serum creatinine with live probe as measures of leanness. *J. Anim. Sci.* 17:480-489.

Saison, R. 1958. Report of a blood group system in swine. *J. Immunol.* 80:463-467.

Salmela, A. G. 1958. The interaction between environment heredity as measured by feed lot performance and carcass characteristics in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Self, H. L. and Grummer, R. H. 1958. The rate and economy of pig gains and the reproductive behavior in sows when litters are weaned at 10 days, 21 days or 56 days of age. *J. Anim. Sci.* 17:862-868.

Skjervold, H. and Indrebo, T. 1958. Determination of center of gravity as an aid in the evaluation of bacon type in pigs. *Agr. Coll. Norway Instit. Anim. Genetics & Breed. Rept. No. 116.* 37(2):_____.

Smith, Charles. 1958. Efficiency of testing schemes in swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Spies, H. G., Zimmerman, D. R., Self, H. L., and Casida, L. E. 1958. Influence of hysterectomy and exogenous progesterone on the size and progesterone content of the corpora lutea in gilts. (Abs.) *J. Anim. Sci.* 17:1234.

Stevenson, J. H. and Smith, N. E. 1958. Marketing meat type hogs, pork; costs, returns, economic and marketing information for Indiana farmers. Purdue Univ. Agr. Ec. Dept., Nov. 1958.

Stratman, F. W. and Self, H. L. 1958. The effect of semen volume and sperm concentrations on fertility and embryonic survival in artificially inseminated gilts. (Abs.) *J. Anim. Sci.* 17:1238.

Stratman, F. W., Self, H. L., and Smith, V. R. 1958. Effect of pitocin on fertility in gilts artificially inseminated with a low sperm concentration and semen volume. (Abs.) *J. Anim. Sci.* 17:1214.

Stratman, F. W., Self, H. L., and Smith, V. R. 1958. Fertilization rates obtained with boar semen stored for zero and twelve hours. *J. Anim. Sci.* 17:598-603.

Stothart, J. G. 1958. The Lacombe pig. *Pig Breed. Gaz.* 94:73-75.

Sumption, L. J. and Adams, J. C. 1958. Multiple sire mating: The effect of mating behavior, order, frequency and interval between mating on multiple paternity. (Abs.) *J. Anim. Sci.* 17:1141-1142.



1958

Sumption, L. J. and Adams, J. C. 1958. Studies of swine breeding methods. Swine Prof. Rept. 357. Neb. Agr. Exp. Sta.

Sumption, L. J. and Rempel, W. E. 1958. A study of evolution in animal breeding. (Abs.) Proc. Fifth Internat'l. Cong. Genetics. (Montreal). 2:282-283.

Sutherland, T. M. 1958. An index for selecting hogs using data from a testing station. Ph.D. Thesis. Iowa State Univ. Libr. Ames.

Swisher, W. L. 1958. The relation of urinary creatinine to the lean mass of swine. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Teague, H. S. and Rutledge, E. A. 1958. A generation study of the adequacy of all-plant versus plant and animal protein rations for swine. (Abs.) J. Anim. Sci. 17:1169.

Terrill, S. W. 1958. Swine management. Diseases of swine. Ed. by H. W. Dunne. Iowa State Coll. Press, Ames. pp. 675-691.

Thrasher, G. W., Perry, T. W., Andrews, F. N., Beeson, W. M., and Stob, Martin. 1958. Effect of estrogenic and androgenic compounds upon growth and carcass composition of swine. J. Anim. Sci. 17:1178-1179.

Tribble, L. F., Amick, G. L., Lasley, J. F., and Zobrisky, S. E. 1958. The effects of sex and stilbestrol on growth, feed efficiency and carcass characteristics of swine. (Abs.) J. Anim. Sci. 17:1179.

Tuma, H. J., Merkel, R. A., and Mackintosh, D. L. 1958. Correlation between live hog scores and carcass measurements. (Abs.) J. Anim. Sci. 17:1158-1159.

Wahlstrom, R. C. 1958. Feeding the young pig. S. Dak. Farm & Home Res. 9(3):3-5.

Waldorf, D. P., Spies, H. G., Zimmerman, D. R., Self, H. L., Chapman, A. B., and Casida, L. E. 1958. The relationship of the dam's feeding regimen, breed, and individuality to fetal development in swine. J. Anim. Sci. 17:622-634.

Warwick, E. J. 1958. Effects of high temperature on growth and fattening in beef cattle, hogs and sheep. The effects of climate on animal performance. J. Hered. 49:69-74.

Whatley, J. A., Jr. 1958. Good pork...but cheap. Breed. Gaz. 123(11):10.



1958

Whatley, J. A., Jr., Palmer, J. B., and Stephens, D. F. 1958. Performance testing boar pigs. Feeding and Breeding Tests. 32nd Ann. Livestock Feeders' Day Rept., Apr. 19. Okla. Agr. Exp. Sta. MP-51:45-49.

Willham, R., Hazel, L. N., and Durham, R. 1958. Biometrical aspects of feed consumption, gain and days on test in swine. (Abs.) J. Anim. Sci. 17:1138.

Wilson, S. P., Squiers, C. D., and Warren, W. M. 1958. Carcass quality in swine as evaluated by live animal measurements. (Abs.) J. Anim. Sci. 17:1136.

Young, E. P. and Teague, H. S. 1958. Low levels of stilbestrol in breeding-gestation rations for swine. Ohio Agr. Exp. Sta. Anim. Sci. Mimeo. Ser. 112:8-10.

Zeller, J. H. 1958. Breeds of swine. USDA Farmers' Bul. 1263. (slightly rev.) 14 p.

Zeller, J. H. 1958. Swine production. USDA Farmers' Bul. 1437. (slightly rev.) 39 p.

Zimmerman, D. R., Spies, H. G., Self, H. L. and Casida, L. E. 1958. The effect of glucose feeding on ovulation rate in Chester White gilts. (Abs.) J. Anim. Sci. 17:1212.

Zobrisky, S. E., Naumann, H. D., Lasley, J. F., Brady, D. E., and Mullins, A. M. 1958. Physical composition of swine during growth and fattening. Mo. Agr. Exp. Sta. Res. Bul. 672.

1959

Allen, A. D., Tribble, L. F., and Lasley, J. F. 1959. Inheritance of nipple numbers in swine and the relationship to performance. Mo. Agr. Exp. Sta. Res. Bul. 694.

Allen, A. D., Lasley, J. F., and Tribble, L. F. 1959. Milk production and related performance factors in sows. Mo. Agr. Exp. Sta. Res. Bul. 712.

Anderson, L. L. and Melampy, R. M. 1959. The effect of norethynodrel and ethynodiol 3-methyl ether on reproduction in the gilt. (Abs.) J. Anim. Sci. 18:1550-1551.

Andresen, E., Hojgaard, B., Jylling, B., Larsen, B., Moller, F., Moustgaard, J., and Neumann-Sorensen, A. 1959. Blood and serum group investigations on cattle, pigs, and dogs in Denmark. (Danish). VI. Internat'l. Blood Group Rept. Cong. (Munich). pp. 24-39. Tierzuchtforschung. V. Munchen, Germany. Zuchtkd. 32:306-323.

Andresen, E. and Irwin, M. R. 1959. The E blood group system of the pig. I. Nord. Veterinar. Med. 11:540-547.

Andresen, E. and Irwin, M. R. 1959. The K blood group system of the pig. Acta Agric. Scand. 9:253-260.

Andresen, E., Jeppesen, R., and Moustgaard, J. 1959. Blood typing in connection with progeny testing of swine. (English Summary). pp. 242-254. Ann. Rept. Roy. Veter. and Agr. Coll. Sterility Res. Institut. A/S Carl Fr. Mortensen, Copenhagen.

Andresen, E., Larsen, B., and Neumann-Sorensen, A. 1959. Blood groups of domestic animals. Proc. XVI Int. Vet. Cong. (Madrid). 1(A.2):71-89.

Andresen, E. and Wroblewski, A. 1959. The E blood group system of the pig. II. Nord. Veterinar. Med. 11:548-558.

Anon. 1959. Oklahoma's program of profit pointers for breeding commercial swine. Okla. State Univ. Ext. L. L-37.

Bialy, G. and Self, H. L. 1959. The storage potential and citric acid content of fractionated ejaculates of the boar. J. Anim. Sci. 18:374-382.

Bogart, R. 1959. Improvement of Livestock. MacMillan Co., N.Y.

Bowman, J. C. 1959. Selection for heterosis. Anim. Breed. Abs. 27(3):261-273.

Boylan, William J. 1959. The inheritance of prolificacy in swine. M.S. Thesis. Univ. of Minn. Libr. St. Paul.



1959

Brunstad, G. E. and Fowler, S. H. 1959. Some carcass characteristics of swine in the eighth generation of production under four combinations of full and limited feeding. *J. Anim. Sci.* 18:211-220.

Caldwell, J. D., Sumption, L. J., and Adams, J. C. 1959. Comparative growth response of "disease-free" and diseased swine to iron administration. *Amer. Vet. Med. Assn. J.* 134:287-290.

Caldwell, J. D., Sumption, L. J., and Young, G. A. 1959. Swine repopulation. II. Performance of "disease-free" boars on farms with diseased pigs. *Amer. Vet. Med. Assn. J.* 135:504-505.

Cooper, R. J. 1959. Muscle development in two genetic groups of swine as influenced by the amount of feed and length of feeding. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Cox, D. F. 1959. Components of genetic variance in swine as estimated from the regression of phenotypic variance on relationship within pens. (Abs.) *J. Anim. Sci.* 18:1464.

Cox, D. F. 1959. Genetic and environmental factors influencing gain and fatness in swine. *Diss. Abs.* 20:1931.

Cox, David F. 1959. Genetic and environmental factors influencing gain and fatness in swine. Ph.D. Thesis. Iowa State Coll. Libr. Ames.

Day, B. N. 1959. Experimental study of estrus and ovulation in swine. *Diss. Abs.* 19:1880-1881.

Day, B. N., Anderson, L. L., Emmerson, M. A., Hazel, L. N., and Melampy, R. M. 1959. Effect of estrogen and progesterone on early embryonic mortality in ovariectomized gilts. *J. Anim. Sci.* 18:607-613.

Day, B. N., Anderson, L. L., Hazel, L. N., and Melampy, R. M. 1959. Gonadotrophic and lactogenic hormone potencies of gilt pituitaries during the estrous cycle and pregnancy. *J. Anim. Sci.* 18:675-682.

Day, B. N., Anderson, L. L., Hazel, L. N., and Melampy, R. M. 1959. Synchronization of estrus and ovulation in swine. *J. Anim. Sci.* 18:909-917.

Day, B. N., Zobrisky, S. E., Tribble, L. F., and Lasley, J. F. 1959. Effects of stilbestrol and a combination of progesterone and estradiol on growing-fattening swine. (Abs.) *J. Anim. Sci.* 18:1495.

Dettmers, A. 1959. Über die Zucht des "Miniaturschweines." (Breeding the miniature pig.) II. *Z. f. Tierzucht. u. Zuchtbiol.* 73(4):311-315. (English Summary).



Dziuk, P. J. 1959. Artificial insemination in swine. So. West. Vet. 12:133-135.

Dziuk, P. J. 1959. Semen characteristics and sexual behavior in the boar following administration of atropine. (Abs.) J. Anim. Sci. 18:1554-1555.

East, E., Taylor, J., Miller, I. T., and Widdowson, R. W. 1959. Measurement of backfat thickness on live pigs by ultrasonics. Anim. Prod. 1:129-134.

Fowler, S. H. and Ensminger, M. E. 1959. The Palouse breed of swine - origin, development, characteristics. Wash. Agr. Exp. Sta. Bul. 604.

Fowler, V. R. 1959. The influence of plane of nutrition on the growth and development of farm animals with special reference to the problem of measurement. Thesis. Reading Univ.

Fox, Richard R. 1959. Relationship between backfat thickness and other economic traits in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Gaarder, R. O. 1959. Comparison of two methods of estimating backfat thickness of live hogs. USDA, AMS 318:1-37.

Gardner, Carl E. 1959. The relation of certain live animal scores and measurements to carcass measurements in swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Harrington, G. 1959. Boar progeny testing reports - First comparisons. Pig Breed. Gaz.

Haugse, C. N., DeKrey, W., and Johnson, V. 1959. The relationship of type, grade, weight, and price of market hogs. N. Dak. Agr. Exp. Sta. Bul. 421.

Hazel, L. N. and Kline, E. A. 1959. Ultrasonic measurement of fatness in swine. J. Anim. Sci. 18:815-819.

Hennessy, John A. 1959. Physiological changes observed in the blood of different breeds of swine due to stress. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Hetzer, H. O., Comstock, R. E., Zeller, J. H., Hiner, R. L., and Harvey, W. R. 1959. General and specific combining abilities in crosses among six inbred lines of swine. (Abs.) J. Anim. Sci. 18:1465-1466.



Johnston, E. F., Zeller, J. H., and Cantwell, G. 1959. Sex anomalies in swine. *J. Hered.* 49:255-261.

Jonsson, P. 1959. Investigations on group feeding versus individual feeding and on the interaction between genotype and environment in pigs. *Acta Agric. Scand.* 9(2):204-228.

Joysey, V. C., Goodwin, R.F.W., and Coombs, R.R.A. 1959. The blood groups of the pig. VI. Red cell antigens other than the A-O system. *J. Comp. Path.* 69:29-44.

Joysey, V. C., Goodwin, R.F.W., and Coombs, R.R.A. 1959. The blood groups of the pig. VII. The distribution of twelve red cell antigens in seven breeds. *J. Comp. Path.* 69:292-299.

Judge, M. D., Cahill, V. R., Kunkle, L. E., and Bruner, W. H. 1959. Pork quality. I. Influences of some factors on pork muscle characteristics. *J. Anim. Sci.* 18:448-452.

Kauffman, R. G., Bray, R. W., and Gall, D. W. 1959. The relationship of lumbar lean measurements to pork carcass muscling. (Abs.) *J. Anim. Sci.* 18:1481.

Kilgore, Charles E. 1959. An improved extender for the storage of boar semen. M.S. Thesis. Univ. of Mo. Libr Columbia.

King, J.W.B. and Roberts, R. C. 1959. The effects of inbreeding on carcass traits in the bacon pig. *Anim. Prod.* 1(1):123-127.

Kropf, D. H. 1959. The relationship of muscle and bone characteristics in swine. *Proc. 12th Recip. Meat Conf.* pp. 139-____.

Lasley, E. L. 1959. Swine breeding VI. *Amer. Landrace.* 8(1):14-15. Jan.

Lasley, E. L. 1959. Swine breeding. *Amer. Landrace* 8(3):14-15. May.

Lasley, E. L. 1959. Swine breeding - crossbreeding. *Amer. Landrace.* 8(4):22-23. July.

Lasley, J. F. and Tribble, L. F. 1959. Heterosis and selection for heterosis in swine. *Mo. Agr. Exp. Sta. 21st Ann. Livestock Feeders' Day Rept.* Apr. 10. *Bul. 733:10-12.*

Lodge, G. A. and McDonald, I. 1959. The relative influence of birth weight, milk consumption, and supplementary food consumption on the growth rates of suckling piglets. *Anim. Prod.* 1(2):139-144.

1959

Lucas, I.A.M., Calder, A.F.C., and Smith, H. 1959. The early weaning of pigs. VI. The effects of early weaning and of various growth curves before 50 lb. live weight upon subsequent performance and carcass quality. J. Agr. Sci. 53:136.

MacDonald, M. A., Moxley, J. E., and Hamilton, L. H. 1959. Interrelationships between weights at different ages of Landrace, Yorkshire, Landrace and Yorkshire crossbred pigs. (Abs.) J. Anim. Sci. 18:1468.

Magee, W. T. and Hazel, L. N. 1959. General and specific combining ability for 154-day weight among three-line crosses in swine. J. Anim. Sci. 18:790-795.

McCarty, J. W. 1959. Systematic rotational crossbreeding. Prog. Rept., Swine Field Day. S. Dak. State Coll. Brookings.

Milicevic, Mike. 1959. Response of swine to mechanical and hormonal stress. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Niwa, T. 1959. Artificial insemination of swine in Japan. (Japanese bibliography). Natl. Instit. of Agr. Sci. Chiba-City, Japan. Sept.

Noffsinger, T. L., Andrews, F. N., and Anderson, V. L. 1959. The rate of fat deposition in four lines of swine. J. Anim. Sci. 18:127-133.

Noland, P. R., Scott, W. K., and Baugus, C. A. 1959. Response of the UARK Poland Chinas to varying calorie-protein ratios. (Abs.) So. Sect., Amer. Soc. Anim. Prod. Meet., Feb. 2-4, 1959. Memphis. J. Anim. Sci. 18:1159.

Omtvedt, I. T., Whatley, J. A., Jr., Palmer, J. B., and Stephens, D. F. 1959. Comparison of iron injections under different types of management systems. Feeding and Breeding Tests. Okla. Agr. Exp. Sta. 33rd Ann. Livestock Feeders' Day Rept. Apr. 18, 1959. MP-55:2-5.

Omtvedt, Irvin T. 1959. A comparison of pasture and confinement management systems for raising swine. M.S. Thesis. Okla. State Univ. Libr. Stillwater.

Pearson, A.M., Deans, R. J., and Bratzler, L. J. 1959. Some lumbar lean measures as related to swine carcass cut-outs and loin eye area. J. Anim. Sci. 18:1087-1093.

Pearson, A.M., Magee, W. T., Bratzler, L. J., and Hoefer, J. A. 1959. Carcass characteristics and cut-outs of some different breeds of swine. (Abs.) J. Anim. Sci. 18:1482.

1959

Rathnasabapathy, V. and Lasley, J. F. 1959. Some factors causing embryonic mortality in swine. Indian J. Vet. Sci. 29(2/3): 91-99.

Reddy, V. B., Lasley, J. F., and Tribble, L. F. 1959. Heritabilities and heterosis of some economic traits in swine. Mo. Agr. Exp. Sta. Res. Bul. 689.

Reimer, Diedrich. 1959. Genetic correlations between growth rate and efficiency of feed utilization in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Rempel, W. E. and El-Issawi, H. F. 1959. Heritability of growth in a line of swine developed from a crossbred foundation. (Abs.) J. Anim. Sci. 18:1468.

Robison, O. W. 1959. Development of a swine selection index including live animal measurements as indicators of carcass quality. Ph.D. Thesis. Univ. of Wis. Libr. Madison.

Rydberg, M. E., Self, H. L., Kowalczyk, T., and Grummer, R.H. 1959. The effect of pre-partum intramuscular iron treatment of dams on litter hemoglobin levels. J. Anim. Sci. 18:415-419.

Rydberg, M. E., Self, H. L., Kowalczyk, T., and Grummer, R. H. 1959. The effectiveness of three different methods of iron administration to young pigs. J. Anim. Sci. 18:410-414.

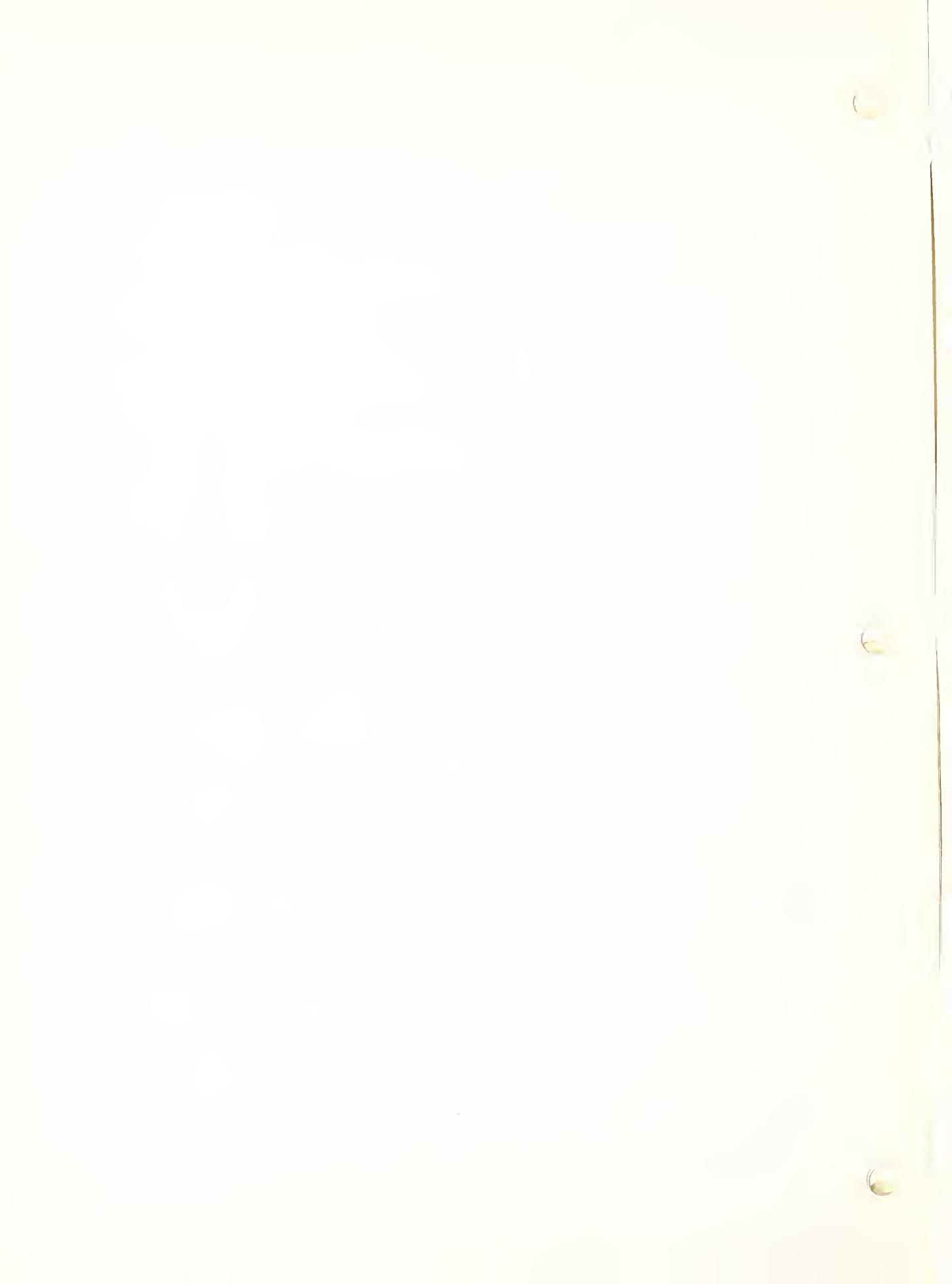
Salmela, A. B. 1959. Swine breeding research at North Central. Northcentral Quarterly. 29(4). Grand Rapids.

Self, H. L. 1959. Artificial insemination in swine. A. I. Dig. 7(11):11-12.

Self, H. L. 1959. (Artificial insemination) is just ahead! Canad. Landrace Bul. 3(4):16-17. Dec.

Self, H. L. 1959. Blood fat levels in growing-finishing swine as influenced by sex, age, breed and ration. J. Anim. Sci. 18:561-566.

Self, H. L. 1959. The problem of storing and inseminating boar semen. France. Institut. Natl. de la Rech. Agron. Ann. Ser. D., Ann. De Zootech. 8(sup):121-134.



1959

Skjervold, H. and Odegard, A. K. 1959. Estimation of breeding value on the basis of the individual's own phenotype and ancestors' merit. *Acta Agric. Scand.* 9(3):341-354.

Smith, C. 1959. A comparison of testing schemes for pigs. *Anim. Prod.* 1(2):113-126.

Smith, H. J. and Moorman, R. P. 1959. Performance of straightbred and cross-bred swine. (Abs.) *So. Sect. Amer. Soc. Anim. Prod. Meet.*, Feb. 2-4, 1959. Memphis. *J. Anim. Sci.* 18:1162.

Spies, H. G., Zimmerman, D. R., Self, H. L., and Casida, L. E. 1959. The effect of exogenous progesterone on formation and maintenance of the corpora lutea and on early embryo survival in pregnant swine. *J. Anim. Sci.* 18:163-172.

Stevermer, E., Kovacs, M. F., Jr., Hoekstra, W. G., and Self, H. L. 1959. The effect of level of feed intake of mature boars on fertility and on certain chemical constituents of the ejaculate. (Abs.) *J. Anim. Sci.* 18:1488-1489.

Stormont, C. 1959. On the applications of blood groups in animal breeding. *Proc. X. Int. Cong. Genet.* 1:206-224.

Stouffer, J. R. 1959. Status of the application of ultrasonics in meat animal evaluation. *Proc. Recip. Meat Conf.* 12:161-__.

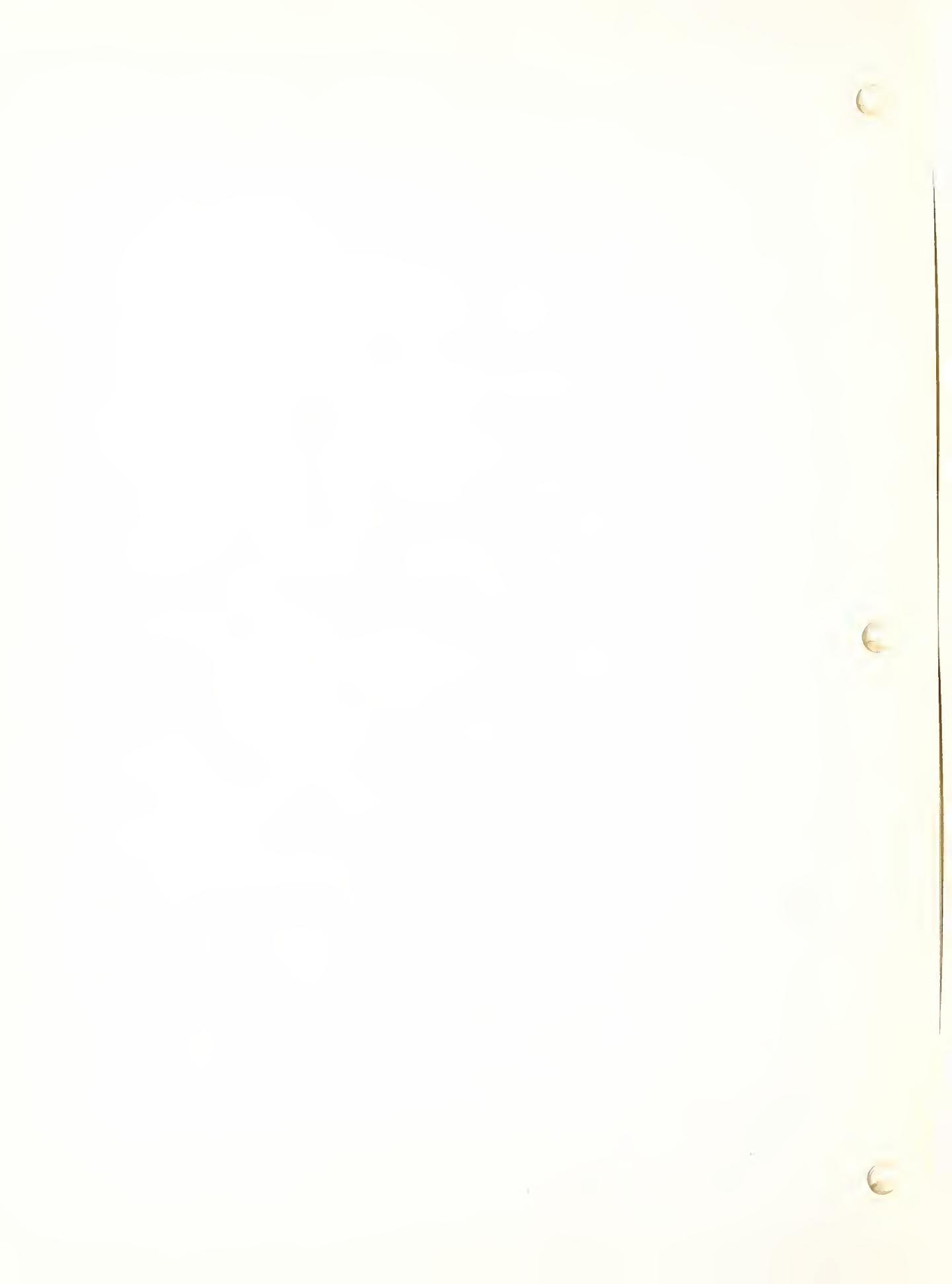
Stouffer, J. R., Wallentine, M. V., and Wellington, G. H. 1959. Ultrasonic measurement of fat thickness and loin eye area on live cattle and hogs. (Abs.) *J. Anim. Sci.* 18:1483.

Stratman, F. W. and Self, H. L. 1959. A comparison of natural mating with artificial insemination and the influence of volume and sperm numbers on conception rate and fertility levels in sows. (Abs.) *J. Anim. Sci.* 18:1556-1557.

Stratman, F. W., Self, H. L., and Smith, V. R. 1959. The effect of oxytocin on fertility in gilts inseminated with a low sperm concentration and semen volume. *J. Anim. Sci.* 18:634-640.

Sumption, L. J. and Collins, J. S. 1959. The "isolation principle" in swine management. (Abs.) *J. Anim. Sci.* 18:1406.

Sumption, L. J., DeBower, R. C., Kasson, C. W., and Adams, C. H. 1959. Some factors influencing physical components of swine carcasses. (Abs.) *J. Anim. Sci.* 18:1469.



1959

Teague, H. S. 1959. All-plant vs. plant and animal protein rations for hogs. Ohio Farm & Home Res. 44(319):58-59. July-Aug.

Terrill, C. E., Bayley, N. D., Craft, W. A., Gordon, C. D., Sidwell, G. M., and Warwick, E. J. 1959. Performance testing in livestock. 126th AAAS Meet., Chicago. Dec. pp. 26-31.

Teter, W. S. and Hanson, L. E. 1959. The influence of three-week weight on eight-week weight of pigs weaned at three weeks of age. J. Anim. Sci. 18:104-107.

Thrasher, G. W., Perry, T. W., Anderws, F. N., Beeson, W. M., and Stob, M. 1959. The effect of estrogenic compounds upon growth and carcass composition of swine. J. Anim. Sci. 18:399-409.

Whatley, J. A., Omtvedt, I. T., Palmer, J. B., and Stephens, D. F. 1959. A comparison of pasture and confinement systems for raising hogs. Feeding and Breeding Tests. Okla. Agr. Exp. Sta. 33rd Ann. Livestock Feeders' Day Rept. Apr. 18. MP-55:5-11.

Whitten, J. L. 1959. Meat type hog production and marketing. Special hearings. Subcommittee of the committee on appropriations. House of Representatives, 86th Congress, 1st Session.

Willham, R. L., Cox, D. F., and Emmerson, M. A. 1959. Sperm counts in boar semen after local x-ray exposure. (Abs.) J. Anim. Sci. 18:1474.

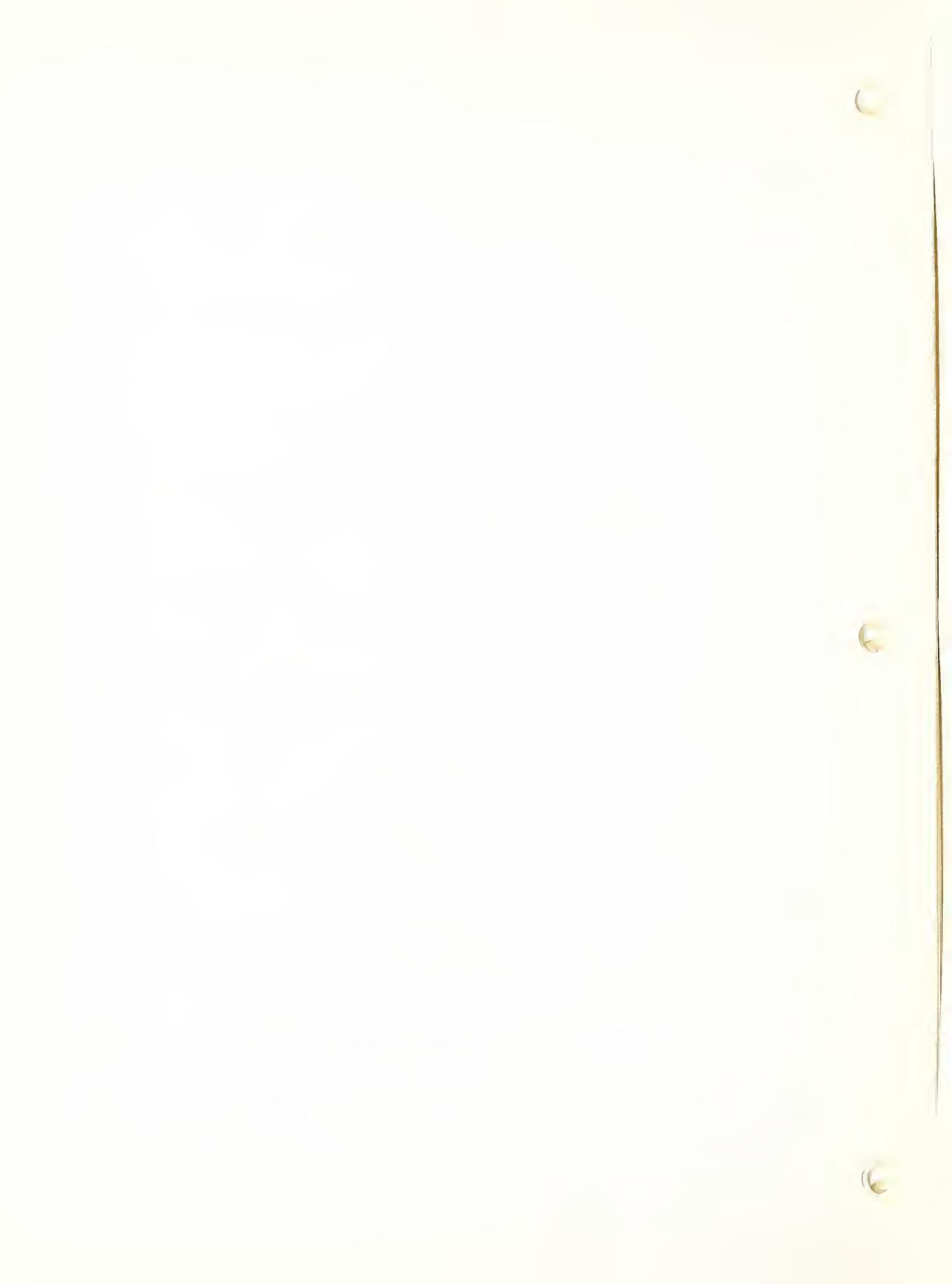
With, T. K., Clausen, H., and Hojgaard-Olsen, N. J. 1959. Congenital porphyria in pigs. Studies on living animals. (English summary). Nat. Res. Instit. Anim. Husb. Copenhagen.

Young, E. P. and Teague, H. S. 1959. Prenatal reproductive performance in gilts fed low levels of stilbestrol in a legume-free and an alfalfa ration. J. Anim. Sci. 18:298-306.

Young, G. A., Underdahl, N. R., Sumption, L. J., Peo, E. R., Olsen, L. S., Kelley, G. W., Hudman, D. B., Caldwell, J.D., and Adams, C.H. 1959. Swine repopulation. I. Performance within a "disease-free" experiment station herd. Amer. Vet. Med. Assn. J. 134:491-496.

Zobrisky, S. E., Brady, D.E., Lasley, J. F., and Weaver, L. A. 1959. Significant relationships in pork carcass evaluation. I. Lean cuts as criteria for live hog value. J. Anim. Sci. 18:420-426.

Zobrisky, S. E., Brady, D. E., Lasley, J. F., and Weaver, L. A. 1959. Significant relationships in pork carcass evaluation. II. Measurements and cuts of fat as criteria for live hog value. J. Anim. Sci. 18:583-588.



1959

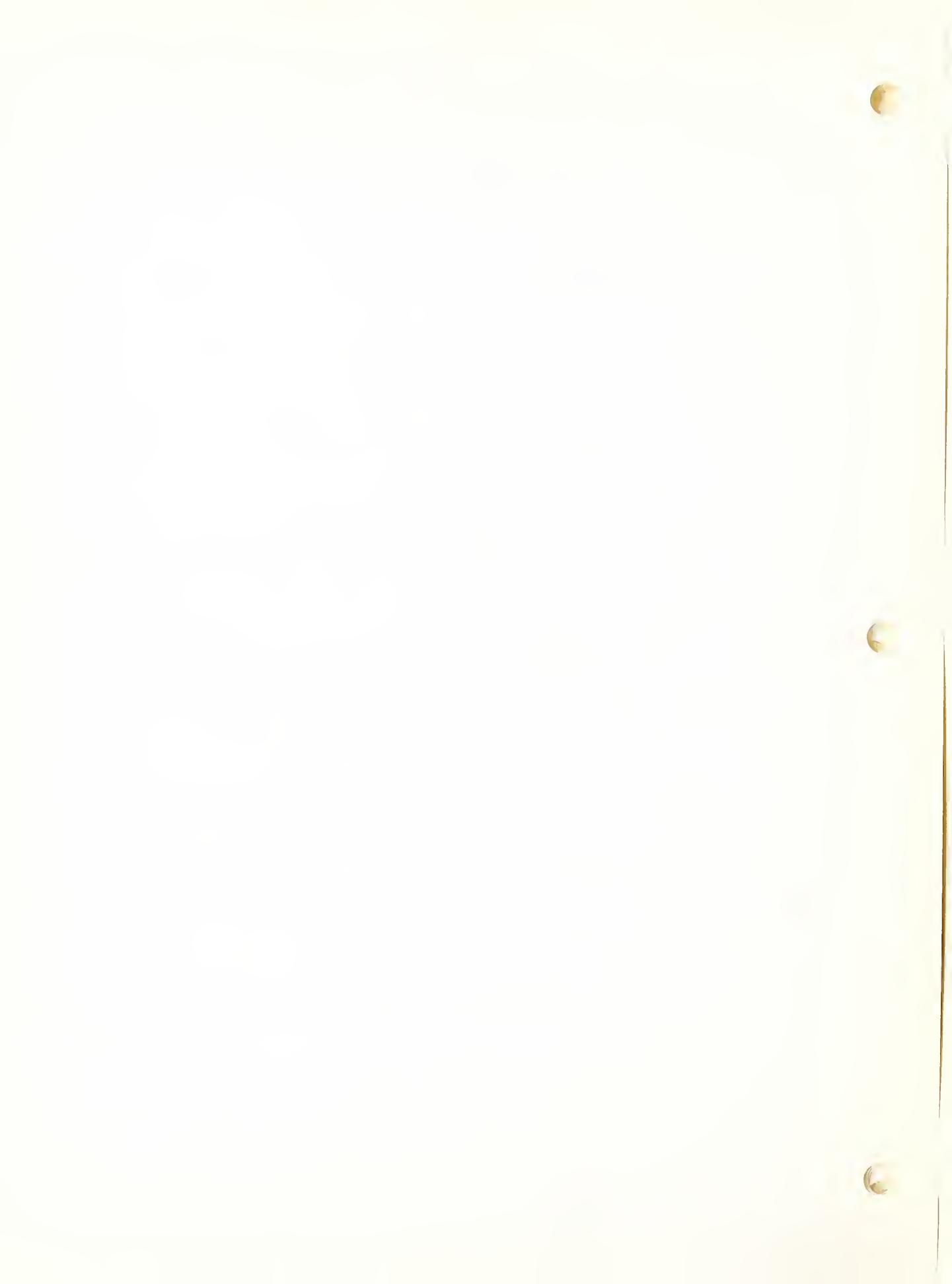
Zobrisky, S. E., Brady, D. E., Lasley, J.F., and Weaver, L. A. 1959.
Significant relationships in pork carcass evaluation. III. Dressing
percent as a criterion for live hog value. J. Anim. Sci. 18:589-593.

Zobrisky, S. E., Brady, D. E., Lasley, J. F., and Weaver, L. A. 1959.
Significant relationships in pork carcass evaluation. IV. Loin
equivalents as a criterion for live hog value. J. Anim. Sci. 18:594-598.

Zobrisky, S. E., Naumann, H. D., Dyer, A. J., and Anderson, E. C. 1959.
The relationship between the potassium isotope K^{40} and meatiness of
live hogs. (Abs.) J. Anim. Sci. 18:1480.

Zobrisky, S. E., Swisher, W.L., Dyer, A. J., and Naumann, H. D. 1959.
Urinary creatinine as a measure of meatiness in barrows. (Abs.)
J. Anim. Sci. 18:1481.

Zobrisky, S. E., Tribble, L. F., Lasley, J.F., and Naumann, H. D. 1959.
The relationship between growth, carcass and meat characteristics of
littermate boars, barrows, gilts and spayed gilts. (Abs.) J. Anim.
Sci. 18:1484.



1960

Adams, C. R., Becker, D. E., Terrill, S. W., Norton, H.W., and Jensen, A. H. 1960. Rate of ovulation and implantation in swine as affected by dietary protein. (Abs.) J. Anim. Sci. 19:1245.

Allen, A. D. and Lasley, J. F. 1960. Milk production of sows. J. Anim. Sci. 19:150-155.

Andresen, E. 1960. A study of blood groups of the pig. Treatise submitted May 1960. Roy. Veter. and Agr. Coll., Copenhagen, Denmark.

Anon. 1960. The Lacombe breed. A bacon type hog developed by the Canadian Department of Agriculture. Canad. Dept. Agr. Pub. 1095.

Anon. 1960. Leanness made to order. Agr. Res. 8(11):3-5. May.

Brinks, J. S. 1960. A genetic analysis of carcass and production traits in swine. Ph.D. Thesis. Iowa State Univ. Libr. Ames.

Briskey, E. J., Hoekstra, W. G., Bray, R.W., and Grummer, R. H. 1960. A comparison of certain physical and chemical characteristics of eight pork muscles. J. Anim. Sci. 19:214-225.

Broderick, T. 1960. Genetic aspects of pedigree Irish Large White pigs. J. Dept. Agr. (Dublin). 61:13-55.

Cahill, V. R., Teague, H. S., Kunkle, L. E., Moxon, A. L., and Rutledge, E. A. 1960. Measurement of and ways of affecting sex influenced performance of growing-finishing swine. J. Anim. Sci. 19:1036-1040.

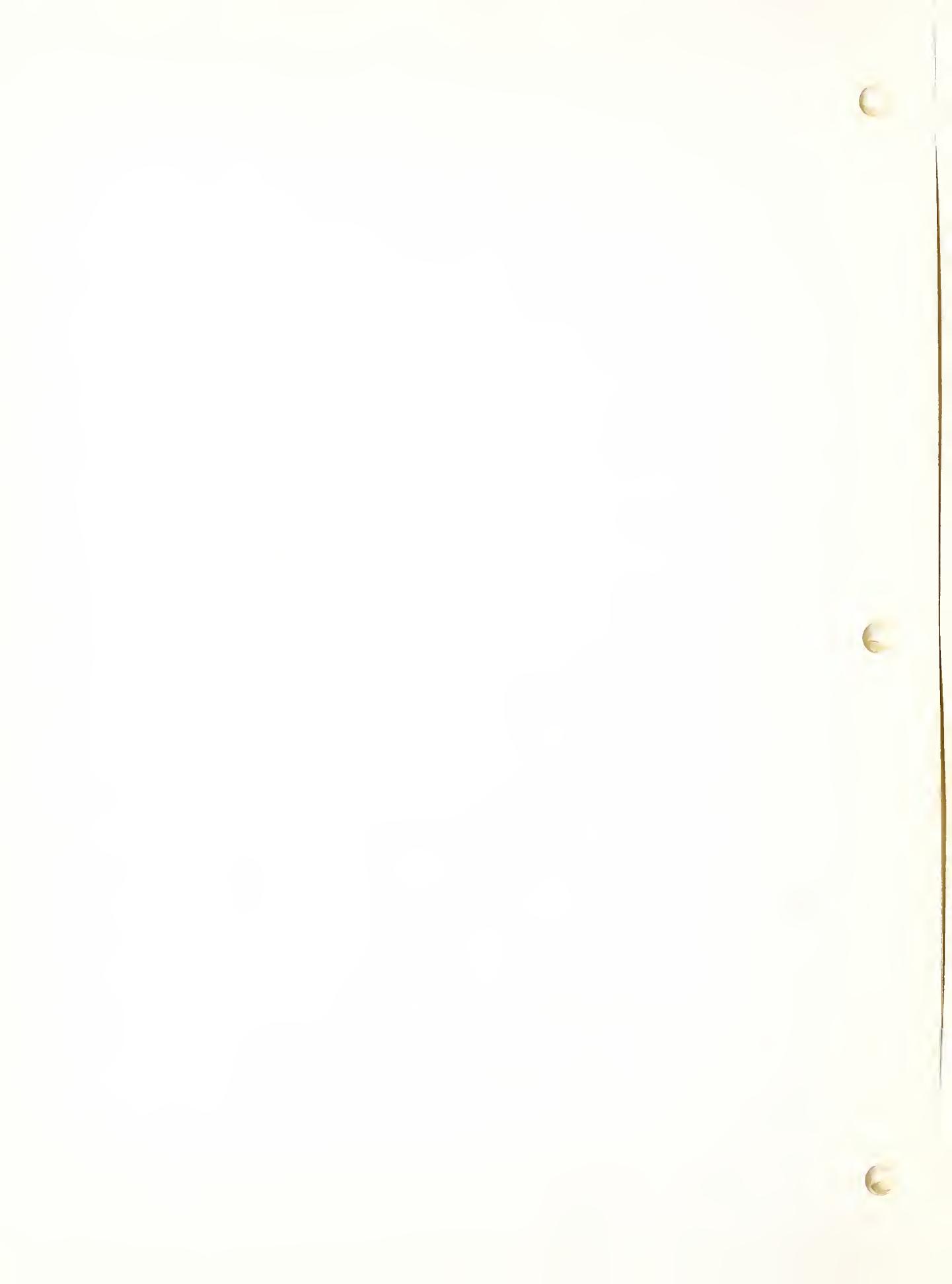
Caldwell, J. D. 1960. An evaluation of performance of "disease free" pigs in repopulated farm herds. M.S. Thesis. Univ. of Nebr. Libr. Lincoln.

Comstock, R. E. 1960. Problems and evidence in swine breeding. J. Anim. Sci. 19:75-83.

Cox, D. F. 1960. The relation between sex and survival in swine. J. Hered. 51:284-288.

Cox, D. F. and Willham, R. L. 1960. The influence of collection frequency on sperm number in the boar following X-irradiation. (Abs.) J. Anim. Sci. 19:1217.

Craft, W. A. 1960. The development of swine testing. Amer. Livestock J. 125:18-20. Oct.



Day, B. N. 1960. Effect of two levels of energy on reproductive performance of gilts. Mo. Agr. Exp. Sta. Bul. 751. pp. 19-20.

Day, B. N. and Lasley, J. F. 1960. How swine reproduce. Mo. Agr. Exp. Sta. Bul. 756.

Day, B. N., Tribble, L. F., Zobrisk, S. E. 1960. Effects of stilbestrol and a combination of progesterone and estrogen on growing-fattening swine. Mo. Agr. Exp. Sta. Bul. 751. pp. 20-21.

Day, B. N., Zobrisk, S. E., Tribble, L. F., and Lasley, J. F. 1960. Effects of stilbestrol and a combination of progesterone and estradiol on growing-finishing swine. J. Anim. Sci. 19:898-901.

Dean, B. T. and Tribble, L. F. 1960. Effect of level of feeding during gestation on sow performance. Mo. Agr. Exp. Sta. Bul. 751. pp. 16-19.

Dean, B. T. and Tribble, L. F. 1960. Effect of level of energy intake during gestation on condition and performance of swine. (Abs.) J. Anim. Sci. 19:1257.

Dickinson, A. G. 1960. Some genetic implications of maternal effects - on hypothesis of mammalian growth. J. Agr. Sci. 54:378.

Duniec, H. 1960. Phenotypic and genetic correlations between some carcass characteristics and heritability estimates of these characteristics in bacon pigs. (Polish). Wydawnictwo Instytutu Zootechniki No. 117.

Dziuk, P. 1960. Frequency of spontaneous fragmentation of ova in unbred gilts. Prof. Soc. Exp. Biol. & Med. 103(1):91-92.

Dziuk, P. 1960. Influence of orally administered progestins on estrus and ovulation in swine. (Abs.) J. Anim. Sci. 19:1319-1320.

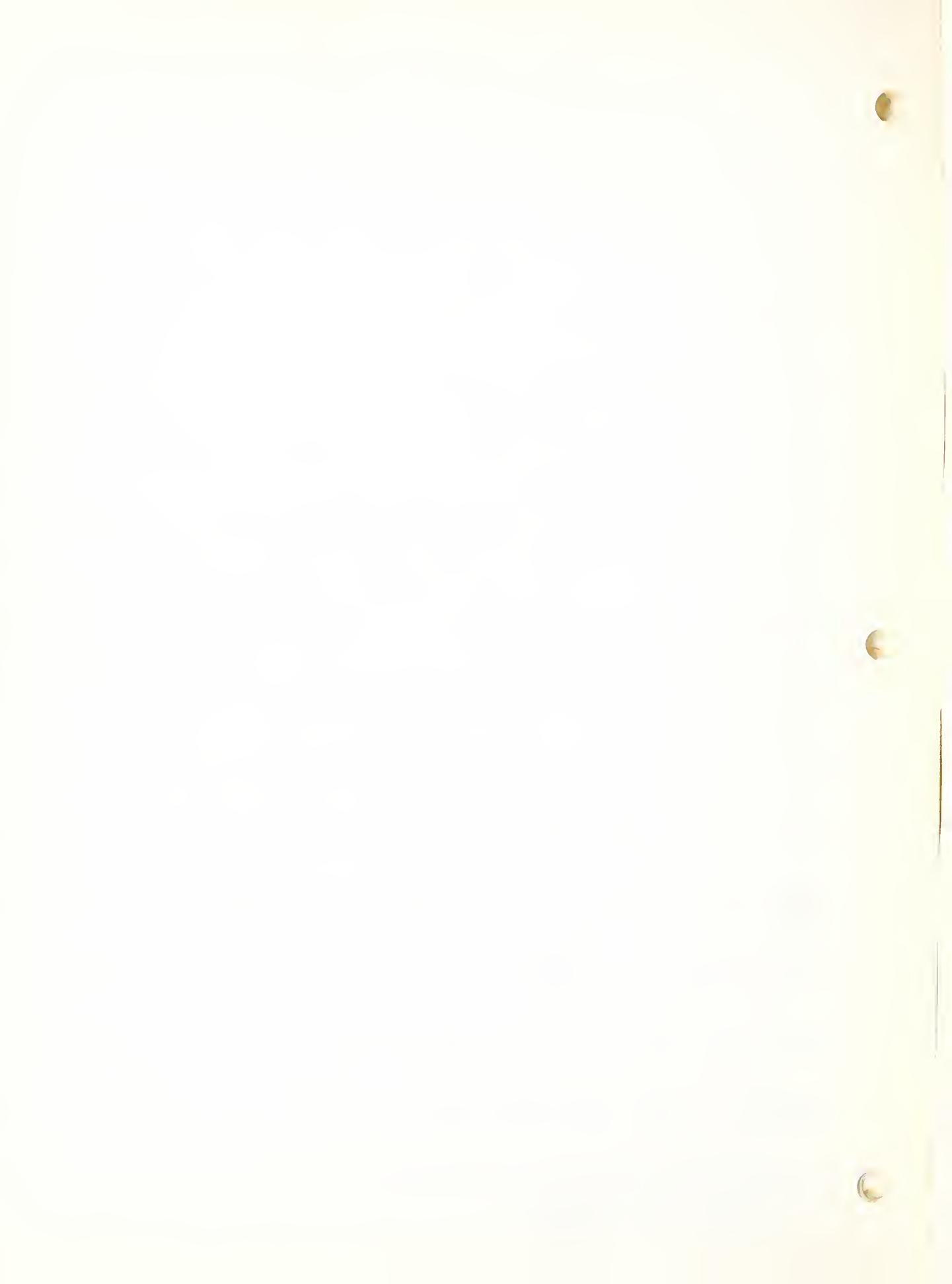
First, N. L., Hoefer, J. A., and Nellor, J. E. 1960. Fertility of artificially inseminated estrous controlled gilts. (Abs.) J. Anim. Sci. 19:1321.

Fowler, Stewart H. and Ensminger, M. E. 1960. Interactions between genotype and plane of nutrition in selection for rate of gain in swine. J. Anim. Sci. 19:434-449.

Hafez, E.S.E. 1960. Hydromalformations and other fetal malformations in swine. J. Hered. 51:77-80.

Hammond, J. 1960. Farm Animals. Their breeding, growth and inheritance. 3rd ed. Edward Arnold & Co. London.

Harrington, G., Pearson, A. M., and Magee, W. T. 1960. Subjective evaluation of cutting yields and loin eye area in hogs and their carcasses. (Abs.) J. Anim. Sci. 19:1220.



1960

Hess, E. A., Ludwick, T. M., and Teague, H. S. 1960. Artificial insemination of swine. Ohio Agr. Exp. Sta. Res. Cir. 90. 14 p.

Hess, E. A., Ludwick, T. M., and Teague, H. S. 1960. Motility of boar spermatozoa as influenced by semen freezing procedures. J. Anim. Sci. 19:926-931.

Hodgson, R. E. 1960. What does a pig think? The Hormel Farmer, Vol. XXIV. No. 5.

Joubert, D. M., Combrink, P. M., and Bonsma, J. C. 1960. Observation on South African native pigs. Pig Breed. J. (Bloemfontein) April. p. 59.

Kelley, G. W., Olsen, L. S., Sumption, L., and Adams, J. 1960. Effectiveness of Hygromycin B as an ascaricide for growing-finishing swine. Vet. Med. 55:73-76. Feb.

King, J.W.B. and Roberts, R. C. 1960. Carcass length in the bacon pig; its association with vertebrae numbers and prediction from radiographs of the young pig. Anim. Prod. 2(1):59-65.

Kulwich, R., Feinstein, L., and Columbic, C. 1960. Beta radioactivity of the ASH in relation to the composition of the ham. J. Anim. Sci. 19:119-126.

Kulwich, R., Feinstein, L., Columbic, C., Hiner, R. L., Seymour, W. R., and Kauffman, W. R. 1960. Relation of gamma ray measurements to lean content of hams. J. Anim. Sci. 9:1238.

Lasley, J. F. and Day, B. N. 1960. How to find animals with superior breeding ability. Mo. Agr. Exp. Sta. Bul. 757. 4 p.

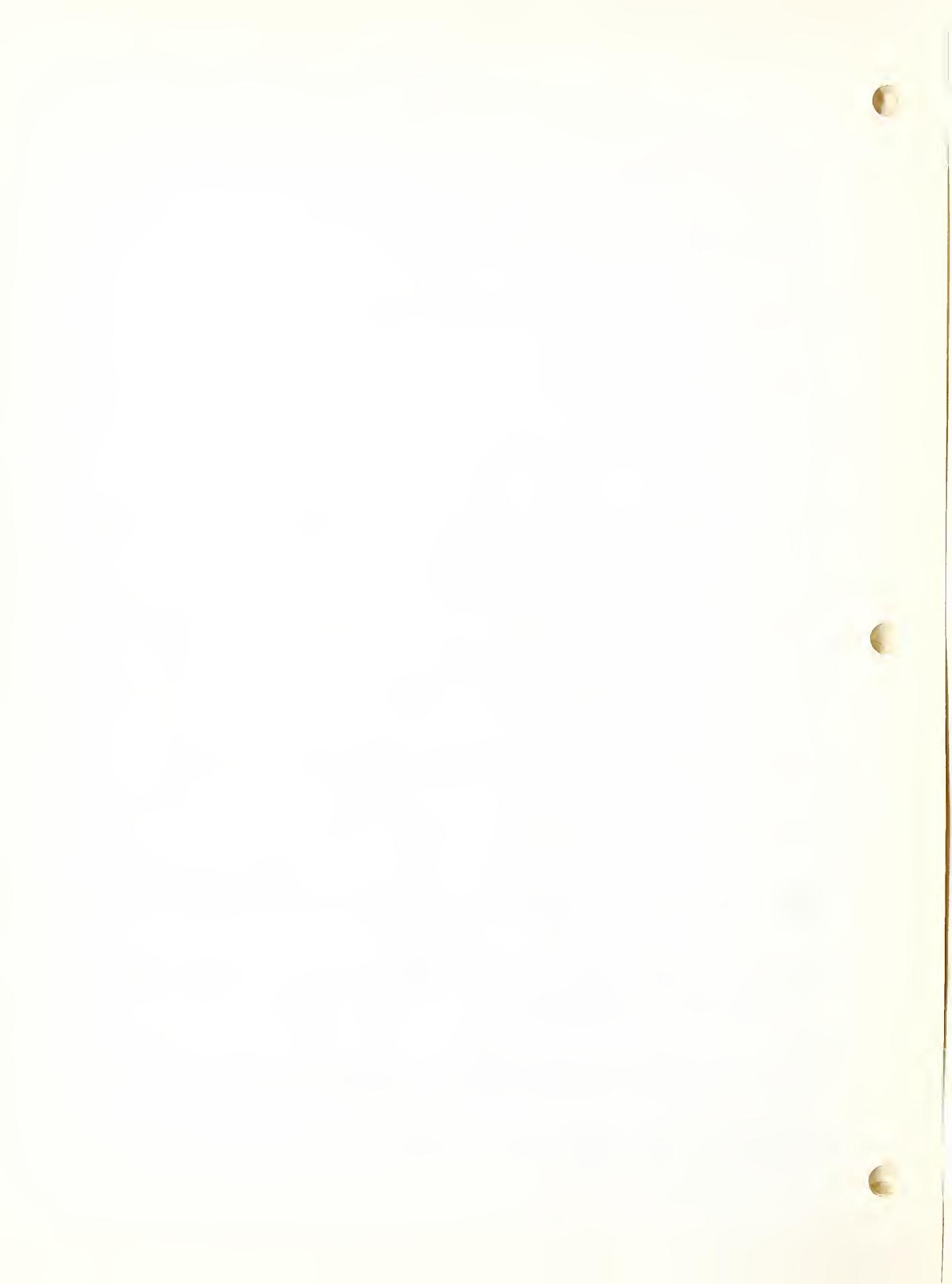
McCarty, J. W. 1960. Breeding hogs with less backfat. Fourth Ann. Swine Day Rept. So. Dak. Agr. Exp. Sta.

Milicevic, Mike, Addleman, A. D., Mayer, D. T., and Lasley, J. F. 1960. Breed differences in the number and kinds of leucocytes in the blood of swine. Mo. Agr. Exp. Sta. Res. Bul. 731.

Morrisette, M. C., Whatley, J. A., and McDonald, L. E. 1960. Effect of feeding 17-acetoxyprogesterone (Prodox) to pregnant gilts and sows. (Abs.) J. Anim. Sci. 19:1330-1331.

Nofziger, J. C., Erb, R. E., and Stormshak, F. 1960. Progesterone levels in corpora lutea, ovaries and adrenals of sows pregnant 35 to 45 days. (Abs.) J. Anim. Sci. 19:1332-1333.

Pomeroy, R. W. 1960. Infertility and neonatal mortality in the sow. J. Agr. Sci. 54:1, 18, 31, 57.



1960

Pomeroy, R. W. 1960. Infertility and neonatal mortality in the sow. II. Neonatal mortality and foetal development. *J. Agr. Sci.* 54:31-56.

Pond, W. G., Robert, S. J., Dunn, J. A., and Willman, J. P. 1960. Late embryonic mortality and stillbirth in three breeds of swine. *J. Anim. Sci.* 19:881-886.

Pratt, D. R. and Magee, W. T. 1960. A comparison of mass selection and inbred lines and line crosses in the laboratory rat. (Abs.) *J. Anim. Sci.* 19:1225.

Pratt, David R. 1960. A comparison of mass selection with inbred lines and line crosses in the laboratory rat. Ph.D. Thesis. Mich. State Univ. Libr. E. Lansing.

Price, J. F., Pearson, A.M., and Emerson, J. A. 1960. Measurement of the cross-sectional area of the loin eye muscle in live swine by ultrasonic reflections. *J. Anim. Sci.* 19:786-789.

Price, J. F., Pearson, A. M., Pfost, H. B., and Deans, R. J. 1960. Application of ultrasonic reflection techniques in evaluating fatness and leanness in pigs. *J. Anim. Sci.* 19:381-387.

Rempel, W. E., Enfield, Frank, and Comstock, R.E. 1960. A comparison of performance of crossbred pigs sired by inbred and hybrid boars. (Abs.) *J. Anim. Sci.* 19:1225-1226.

Rempel, W. E., Sumption, L. J., and Winters, L. M. 1960. Multiple sire mating in swine. I. General considerations. *J. Hered.* 50:293-298.

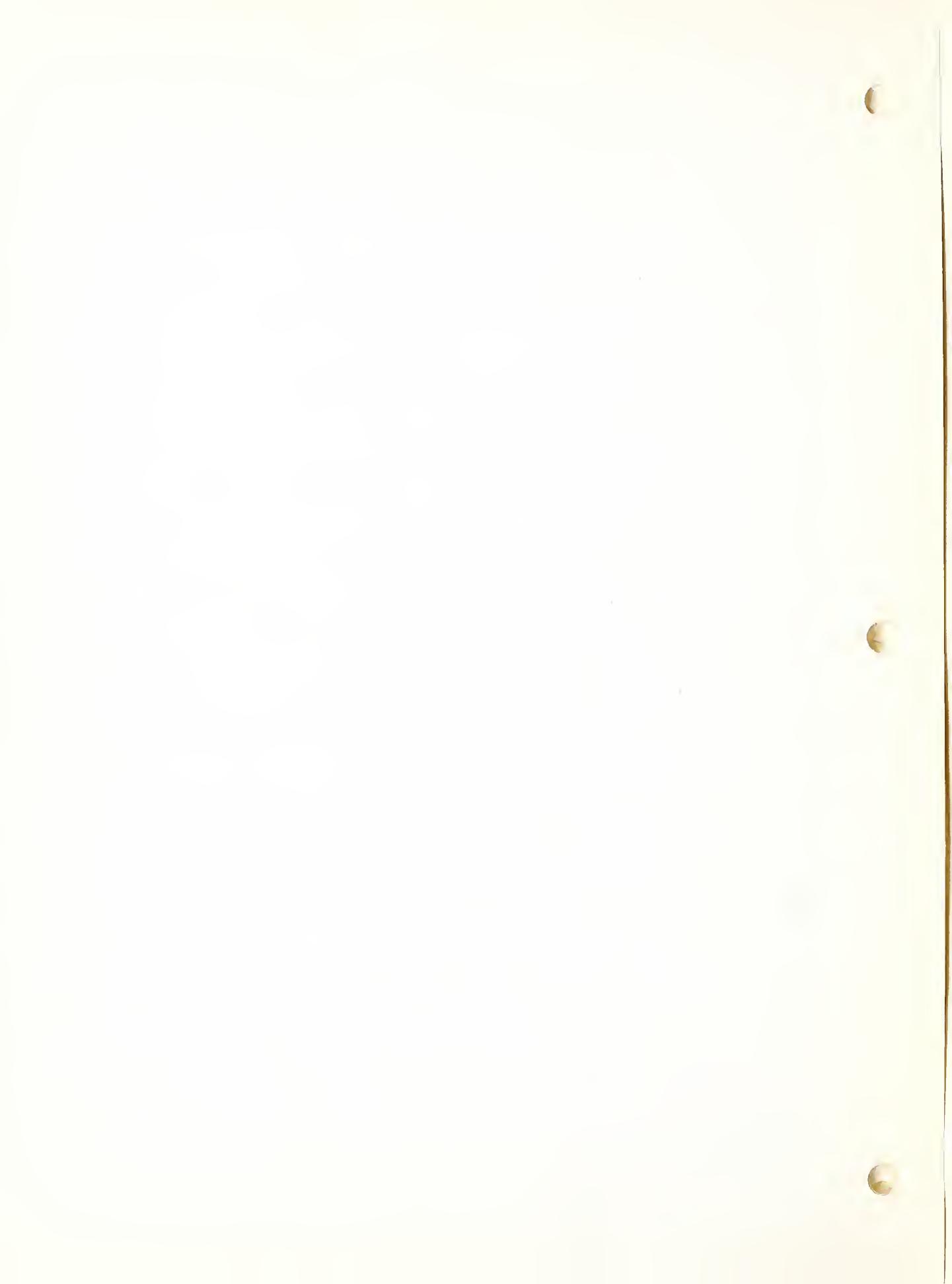
Robison, O. W., Chapman, A. B., and Self, H. L. 1960. Swine selection indexes including live animal measurements as indicators of carcass merit. *J. Anim. Sci.* 19:1024-1030.

Robison, O. W., Cooksey, J. H., Chapman, A. B., and Self, H. L. 1960. Estimation of carcass merit of swine from live animal measurements. *J. Anim. Sci.* 19:1013-1023.

Salmela, A. B., Rempel, W. E., and Comstock, R.E. 1960. The reaction of three kinds of single-cross pigs to three levels of feed intake. I. Feed lot performance. *J. Anim. Sci.* 19:84-88.

Self, H. L. 1960. Artificial insemination.

1. Artificial insemination, status potential and problems. *National Hog Farmer.* 5(7):7. July.
2. The role of the boar. *National Hog Farmer.* 5(8):16. Aug.
3. Technician's skill important factor in A.I.. *National Hog Farmer.* 5(9):24. Sept.



1960

Self, H. L. 1960. Reproduction in swine. Amer. Hampshire Hornedman. 35:44, 46, 48, 50. July.

Self, H. L., Brown, R.R., and Price, J. M. 1960. Quantitative studies on the metabolites of tryptophan in the urine of swine. J. Nutr. 70(1):21-25.

Self, H. L., Grummer, R. H., Hays, O. E., and Spies, H. G. 1960. Influence of three different feeding levels during growth and gestation on reproduction, weight gains and carcass quality in swine. J. Anim. Sci. 19:274-282.

Skjervold, H. 1960. The effectiveness of different selection methods. (Norwegian). Agr. Coll. Norway Instit. Anim. Genet. and Breed. Rept. 139:47-57.

Skjervold, H. 1960. The effectivity by selection for growth rate within baby pig litters. Agr. Coll. Norway Instit. Anim. Genet. and Breed. Rept. 138.

Skjervold, H. and Odegard, A.K. 1960. Estimation of the breeding value of boars based on the results from litter testing. Agr. Coll. Norway Instit. Anim. Genet. and Breed. Rept. 141.

Skjervold, H. and Odegard, A.K. 1960. Estimation of sow yield. Agr. Coll. Norway Instit. Anim. Genet. and Breed. Rept. 140.

Smith, C. 1960. Efficiency of animal testing schemes. Biom. 16(3):408-415.

Smith, H. J., Moorman, R. P., and McLaren, J. B. 1960. Performance of straight bred and crossbred swine. (Abs.) J. Anim. Sci. 19:1227.

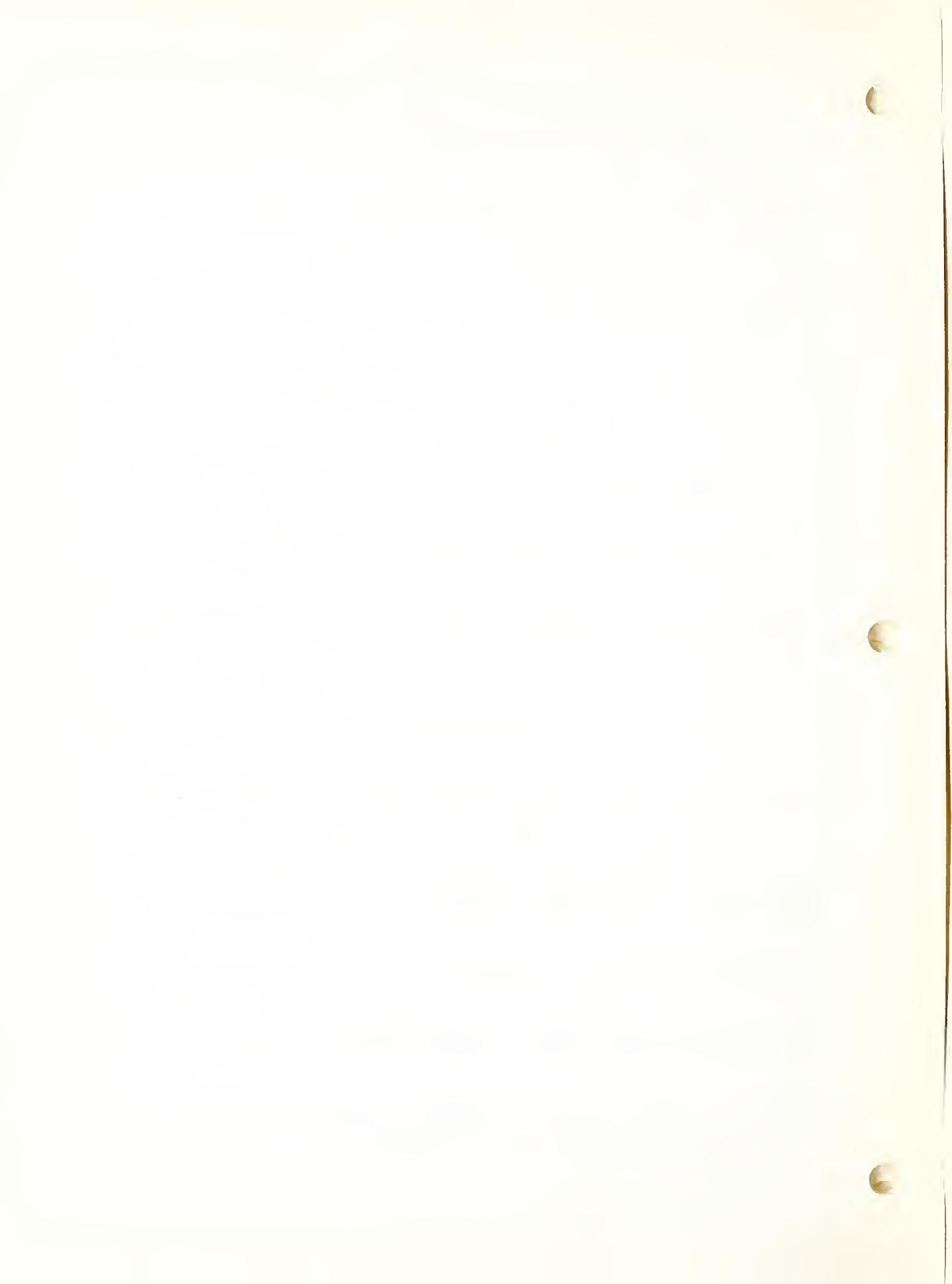
Spies, H. G., Zimmerman, D. R., Self, H. L., and Casida, L. E. 1960. Effect of exogenous progesterone on the corpora lutea of hysterectomized gilts. J. Anim. Sci. 19:101-108.

Spies, H. G., Zimmerman, D.R., Self, H. L., and Casida, L. E. 1960. Maintenance of early pregnancy in ovariectomized gilts treated with gonadal hormones. J. Anim. Sci. 19:114-118.

Stenberg, K. E. 1960. Measurement of backfat thickness on pork carcasses. Proc. 6th Meet. Europ. Meat Res. Work. Utrecht, Sept.

Stouffer, J. R. and Wellington, G. H. 1960. Ultrasonics for evaluation of live animal and carcass composition. Proc. Amer. Meat Instit. Foundat. Res. Conf. 13:81.

Stratman, F. W. and Self, H. L. 1960. Effect of semen volume and number of sperm on fertility and embryo survival in artificially inseminated gilts. J. Anim. Sci. 19:1081-1083.



1960

Sumption, L. J. 1960. Genes for future swine breeding. Nebr. Agr. Exp. Sta. Quar. Summer Qr-7(2):15-16.

Sumption, L. J. 1960. University of Nebraska Line "X". Inbred News. 10(12):4, 14.

Sumption, L. J., Adams, C. H., DeBower, R.G., Kasson, C. W., and Stone, L. 1960. Longer hogs have more loin muscle. (Breeding studies on carcass merit.) Nebr. Agr. Exp. Sta. Anim. Husb. Dept. Swine Prog. Rept. 371. pp. 12-13.

Sumption, L. J., Adams, J. C., Danielson, D. M., Kelley, G. W., Jr., and Underdahl, N. R. 1960. Getting research mileage from hogs. Nebr. Agr. Exp. Sta. Anim. Husb. Dept. Swine Prog. Rept. 371. pp. 14-15.

Taggart, W. F., Hillier, J. C., and Whatley, J. A. 1960. Systems of swine production adaptable to Oklahoma. Okla. State Univ. Agr. Ext. Cir. E-669. 19 p.

Terrill, S. W., Becker, D. E., and Jensen, A. H. 1960. Managing your hog business. Univ. of Ill. Agr. Exp. Sta. Cir. 824. 31 p.

Tollett, J. T., Becker, D. E., Jensen, A.H., and Terrill, S. W. 1960. Effect of dietary nitrate on growth and reproductive performance of swine. (Abs.) J. Anim. Sci. 19:1297.

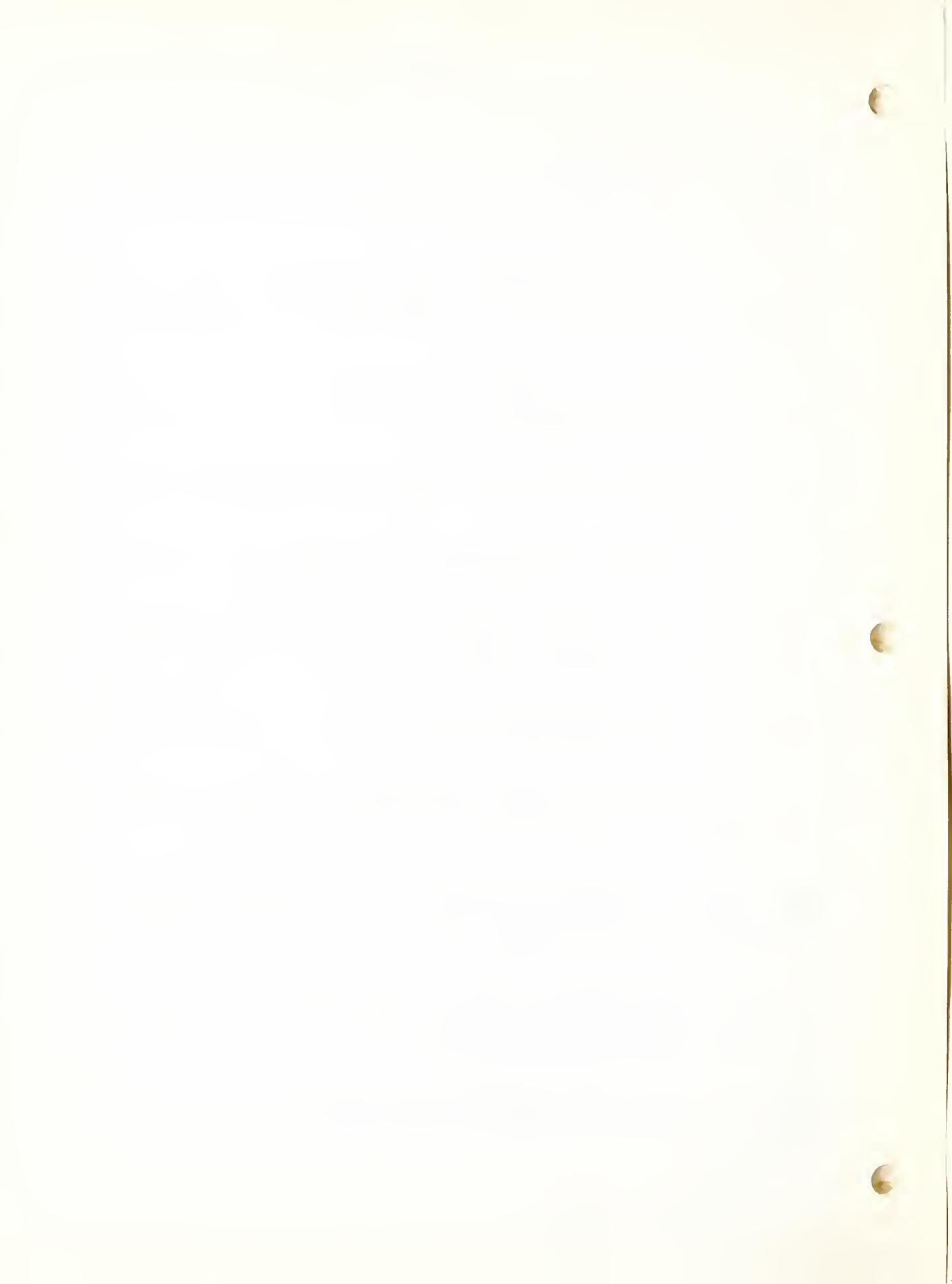
Urban, W. E., Jr. 1960. Ultrasonic measurement of fat deposition in swine during the growing-fattening period. M.S. Thesis. Iowa State Univ. Libr. Ames.

Urban, W. E. and Hazel, L. N. 1960. Ultrasonic measurement of fatness in swine during the growing-fattening period. (Abs.) J. Anim. Sci. 19:1228-1229.

Whatley, J. A., Jr., Wilson, S. P., and Omtvedt, I. T. 1960. Performance tests with purebred and crossbred pigs from two lines of breeding. Feeding and Breeding Tests. Okla. Agr. Exp. Sta. 34th Ann. Livestock Feeders' Day Rept., Apr. 16. MP-57:50-55.

Wilson, S. P., Whatley, J.A., and Omtvedt, I. T. 1960. The effect of number of pigs farrowed per litter on number weaned, birth weight and weaning weight. Feeding and Breeding Tests. Okla. Agr. Exp. Sta. 34th Ann. Livestock Feeders' Day Rept., Apr. 16. MP-57:24-25.

Willham, R. L. 1960. Genetic differences in litter size and average litter weight from a polyallel cross of seven breeds of swine. Diss. Abs. 21(3):401.



1960

Willham, R. L. 1960. Genetic differences in litter size and average litter weight from a polyallel cross of seven breeds of swine. Ph.D. Thesis. Iowa State Univ. Libr. Ames.

Zimmerman, D. R., Spies, H. G., Rigor, E. M., Self, H. L., and Casida, L. E. 1960. Effect of restricted feeding, crossbreeding and season of birth on age at puberty in swine. J. Anim. Sci. 19:687-694.

Zimmerman, D. R., Spies, H. G., Self, H. L., Casida, L. E. 1960. Ovulation rate in swine as affected by increased energy intake just prior to ovulation. J. Anim. Sci. 19:295-301.

Zobriskys, S. E. 1960. Differences between castrate and noncastrate pigs of each sex. Mo. Agr. Exp. Sta. Bul. 751. pp. 30-32.

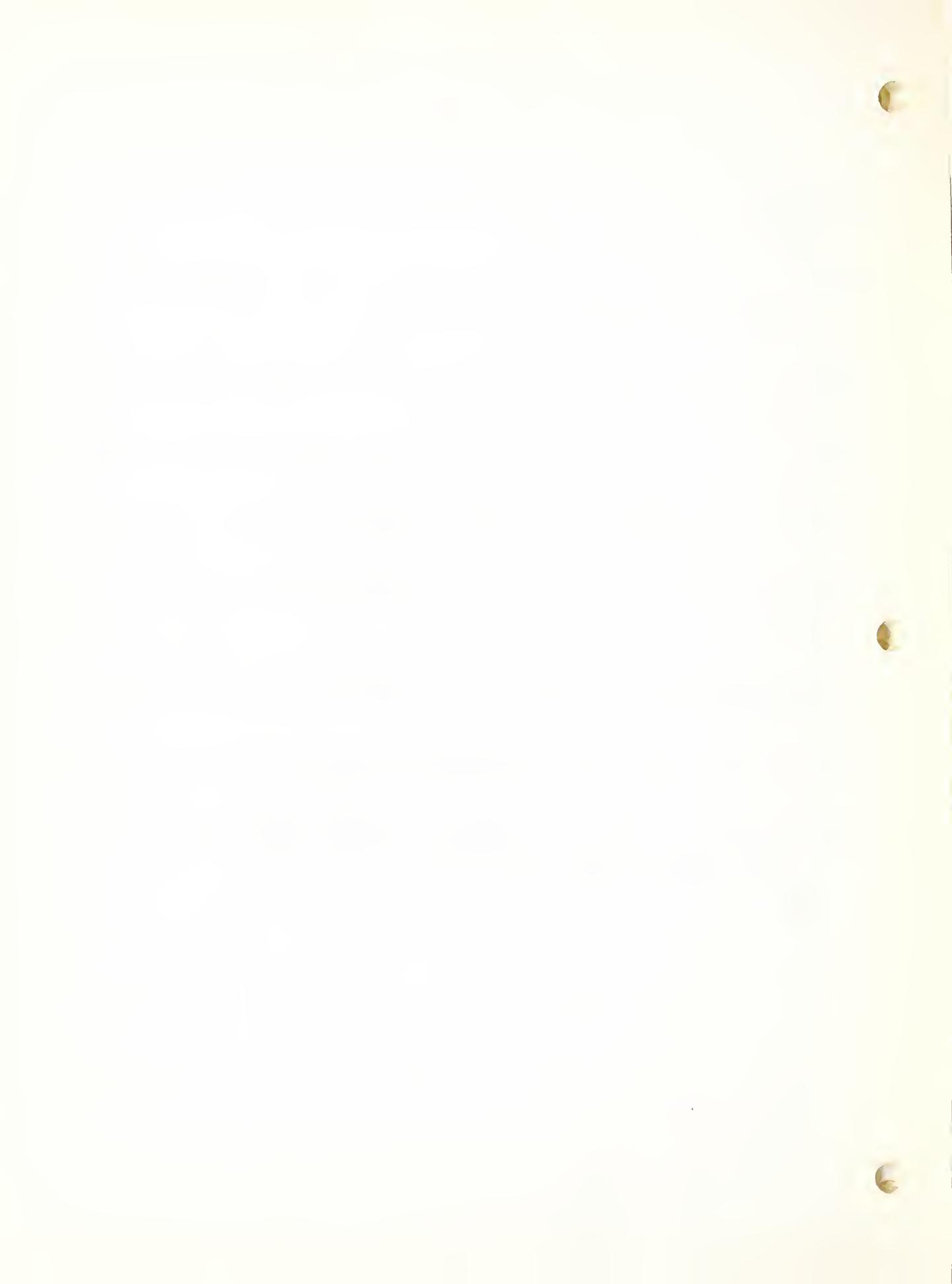
Zobriskys, S. E. 1960. The relationship between the potassium isotope (K^{40}) and meatiness of live hogs. Mo. Agr. Exp. Sta. Bul. 751. pp. 33-34.

Zobriskys, S. E., Leach, H., Rhodes, V. J., and Naumann, H. D. 1960. Carcass characteristic and consumer acceptance of light weight hogs. Mo. Agr. Exp. Sta. Res. Bul. 739.

Zobriskys, S. E., Moody, W. G., Day, W., and Naumann, H. D. 1960. The estimation of loin eye area by high frequency sound. (Abs.) J. Anim. Sci. 19:1244.

Zobriskys, S. E., Moody, W. G., and Naumann, H. D. 1960. Ham equivalent as an index of carcass value. J. Anim. Sci. 19:1244-1245.

Zobriskys, S. E., Tribble, L. F., Moody, W. G., and Naumann, H. D. 1960. Live hog and carcass relationships between boar, barrow and gilt littermates. (Abs.) J. Anim. Sci. 19:1245.



1961

Andresen, E. and Wroblewski, A. 1961. The G and H blood group systems of the pig. *Acta. vet. Scand.* 2:267-280.

Anon. 1961. Feeding and breeding tests with sheep, swine, and beef cattle; progress report, 1960-1961. 35th Ann. Livestock Feeders' Day Rept. Apr. 15. Okla. Agr. Exp. Sta. MP-64.

Bayley, N. D., Craft, W. A., Gordon, C. D., Sidewll, G. M., and Warwick, E. J. 1961. Performance testing in livestock. III. Developmental programs in crops and livestock. Germ Plasm Resources. AAAS Symp. Nov. 28-31, 1959. AAAS Pub. 66.

Bellis, D. B. and Taylor, J. 1961. Nutritional factors affecting lean meat production in culling pigs. *Anim. Prod.* 3(2):209.

Boylan, W. J., Rempel, W. E., and Comstock, R. E. 1961. Heritability of litter size in swine. *J. Anim. Sci.* 20:566-568.

Caldwell, J. D., Sumption, L. J., and Young, G.A. 1961. Swine repopulation. IV. Influence of management upon the growth of specific pathogen-free (SPF) pigs. *Amer. Vet. Med. Assn. J.* 139:342-344.

Chakraborty, Amarendra Nath. 1961. Studies on dilutors for storage of semen at different temperatures. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Chapman, A. B. 1961. Contributions of the laboratory animals to research in livestock improvement. Germ Plasm Resources. pp. 225-238. AAAS Symp. Nov. 28-31, 1959. AAAS Pub. 66.

Comstock, R. E. 1961. Reciprocal recurrent selection (RRS) with reference to swine breeding. U.S. Agr. Res. Serv. Reg. Swine Breed. Lab. Ann. Rept. 24:85-90d.

Cox, D. F. and Willham, R. L. 1961. Cross-nursing studies in swine. (Abs.) *J. Anim. Sci.* 20:904-905.

Cox, D. F. and Willham, R. L. 1961. Influences on the patterns of sperm production in swine following x-irradiation. *J. Exp. Zool.* 146:5-10.

Day, B. N., Lasley, J. F., Addleman, H. E., and Tribble, L. F. 1961. The leucocytic response of swine to stilbestrol and a progesterone-estradiol combination. Mo. Agr. Exp. Sta. Res. Bul. 755.

Day, B. N., Romack, F. E., and Lasley, J. F. 1961. Reproductive performance in gilts administered follicle stimulating hormone. (Abs.) *J. Anim. Sci.* 20:969.



1961

DeBača, R. C., Rust, R. E., and Hazel, L. N. 1961. Crossbreeding for the commercial pork producer. Iowa State Univ. Ext. Pamph. 286.

Dean, B. T. 1961. Factors affecting reproductive performance of swine. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.

Dean, B. T. and Tribble, L. F. 1961. Effect of level of feeding during gestation on sow performance. Mo. Agr. Exp. Sta. Spec. Rept. 5:27-29.

Dean, B. T. and Tribble, L. F. 1961. Reproductive performance of swine fed different planes of energy during gestation. Mo. Agr. Exp. Sta. Bul. 774.

Dean, B. T. and Tribble, L. F. 1961. Value of feeding high levels of antibiotics to sows at breeding. Mo. Agr. Exp. Sta. Spec. Rept. 5:29-30.

Dickerson, G. E. 1961. Effectiveness of selection for animal improvement. III. Developmental programs in crops and livestock. Germ Plasm Resources. AAAS Symp., Nov. 28-31, 1959. AAAS Pub. 66. pp. 161-190.

Duckworth, J. E., Cooper, M. M., Dunkin, A. G., Taylor, J. M., and Holmes, W. 1961. Progeny testing of bacon hogs at Wye College. Anim. Prod. 3(3):239-250.

Duniec, H., Kielanowski, J., and Osinska, Z. 1961. Heritability of chemical fat content in the loin muscle of baconers. Anim. Prod. 3:195-198.

El-Issawi, H. F. and Rempel, W. E. 1961. Heritability of growth rate in inbred swine based on a crossbred foundation. J. Anim. Sci. 20:593-596.

Elsley, F.W.H. 1961. A study of the effect of different weight and development at eight weeks old on the rate and composition of subsequent growth in the pig. Thesis. Leeds Univ. Libr.

Elson, C. E., Kline, E. A., Fuller, W. A., and Hazel, L. N. 1961. Effect of age on the growth of porcine muscle. (Abs.) J. Anim. Sci. 20:916.

Emerson, J. A., Pearson, A. M., Hoefer, J.A., and Bratzler, L. J. 1961. Carcass characteristics of 100-to 200-pound hogs. (Abs.) J. Anim. Sci. 20:916.

Enfield, F. D. 1961. Boar prices and performance records. Minn. Farm & Home Sci. 19(1):6, 24.

Enfield, F. D. and Rempel, W.E. 1961. Inheritance of teat number and relationship of teat number to various maternal traits in swine. J. Anim. Sci. 20:876-879.

1961

Enfield, F. D. and Whatley, J. A., Jr. 1961. Heritability of carcass length, carcass backfat thickness and loin lean area in swine. J. Anim. Sci. 20:631-634.

Fahim, M. S., Mayer, D. T., and Lasley, J. F. 1961. Effect of female sex hormones, thyroxine and vitamin B₁₂ on embryonic mortality in rats. Mo. Agr. Exp. Sta. Res. B. 783.

First, N. L., Stratman, F. W., Rigor, E. M., and Casida, L. E. 1961. Factors affecting ovulation and follicular cyst formation in sows and gilts fed 6-methyl-17 acetoxprogesterone. (Abs.) J. Anim. Sci. 20:970.

Giesler, F. J., Barth, C.L., Brevik, T. J., Burcalow, F.V., Burch, C. W., Felts, V. L., First, N. L., Grummer, R.H., Reierson, R. J., and Todd, A. C. 1961. More profit from pigs. Wis. Agr. Coll. Ext. C. 355, rev.

Hansen, C. T., Chung, C. S., and Chapman, A.B. 1961. Effectiveness of selection in different environments. (Abs.) J. Anim. Sci. 20:906.

Harrington, G. and Pomeroy, R. W. 1961. The yields of cuts from Wiltshire bacon sides in relation to length and other carcass measurements. Anim. Prod. 3(2):163-170.

Hays, V. W. 1961. How well do your hogs measure up. Iowa Farm Sci. 15(11):3-6.

Hazel, L. N. 1961. The effects of sampling errors on the efficiency of selection indexes. Invitational Paper, 53rd Ann. Proc. Amer. Soc. of Anim. Prod. (Abs.) J. Anim. Sci. 20:907.

Hazel, L. N. 1961. Extent and usefulness of hybrid vigor in animal improvement. III. Developmental programs in crops and livestock. Germ Plasm Resources. AAAS Symp., Nov. 28-31, 1959. AAAS Pub. 66. pp. 205-211.

Hazel, L. N. 1961. What role will inbred lines assume? USDA ARS AHRD Reg. Swine Breed. Lab. Ann. Rept. 24:91-92.

Heidenreich, C.J., Tribble, L. F., Zobrisk, S. E., and Lasley, J. F. 1961. Carcass evaluation in live hogs. Mo. Agr. Exp. Sta. Res. Bul. 766.

Hetzer, H. O. 1961. Selection plans for livestock improvement. Scientific problems of recording systems and breeding plans of domestic animals. II. Internat1. Summer School, Sept. 12-27, Max-Planck Instit. for Anim. Breed. and Nutr. Spec. Vol. pp. 225-250.

1961

Hetzer, H. O. 1961. Use of heterosis in livestock production. Scientific problems of recording systems and breeding plans of domestic animals. II. Internat'l. Summer School, Sept. 12-27, Max-Planck Institut. for Anim. Breed. and Nutr. Spec. Vol. pp. 273-298.

Hetzer, H. O., Comstock, R. E., Zeller, J. H., Hiner, R. L., and Harvey, W. R. 1961. Combining abilities in crosses among six inbred lines of swine. USDA Tech. Bul. 1237.

Hetzer, H.O., Harvey, W. R., Miller, G. O., and Hiner, R. L 1961. Genetic and environmental changes in three strains of swine. (Abs.) J. Anim. Sci. 20:907.

Hetzer, H. O., and Zeller, J. H. 1961. Swine breeds in the U.S.A. Handb. der Tierzuchtg. 3(2):134-147.

Johansson, I. 1961. Estimation of breeding values. Scientific problems of recording systems and breeding plans of domestic animals. II. Internat'l. Summer School, Sept. 12-27, Max-Planck Institut. for Anim. Breed. and Nutr. Spec. Vol. pp. 183-211.

Jonsson, P. 1961. Danish pig progeny testing results. Scientific problems of recording systems and breeding plans of domestic animals. II. Internat'l. Summer School, Sept. 12-27, Max-Planck Institut. for Anim. Breed. and Nutr. Spec. Vol. pp. 343-377.

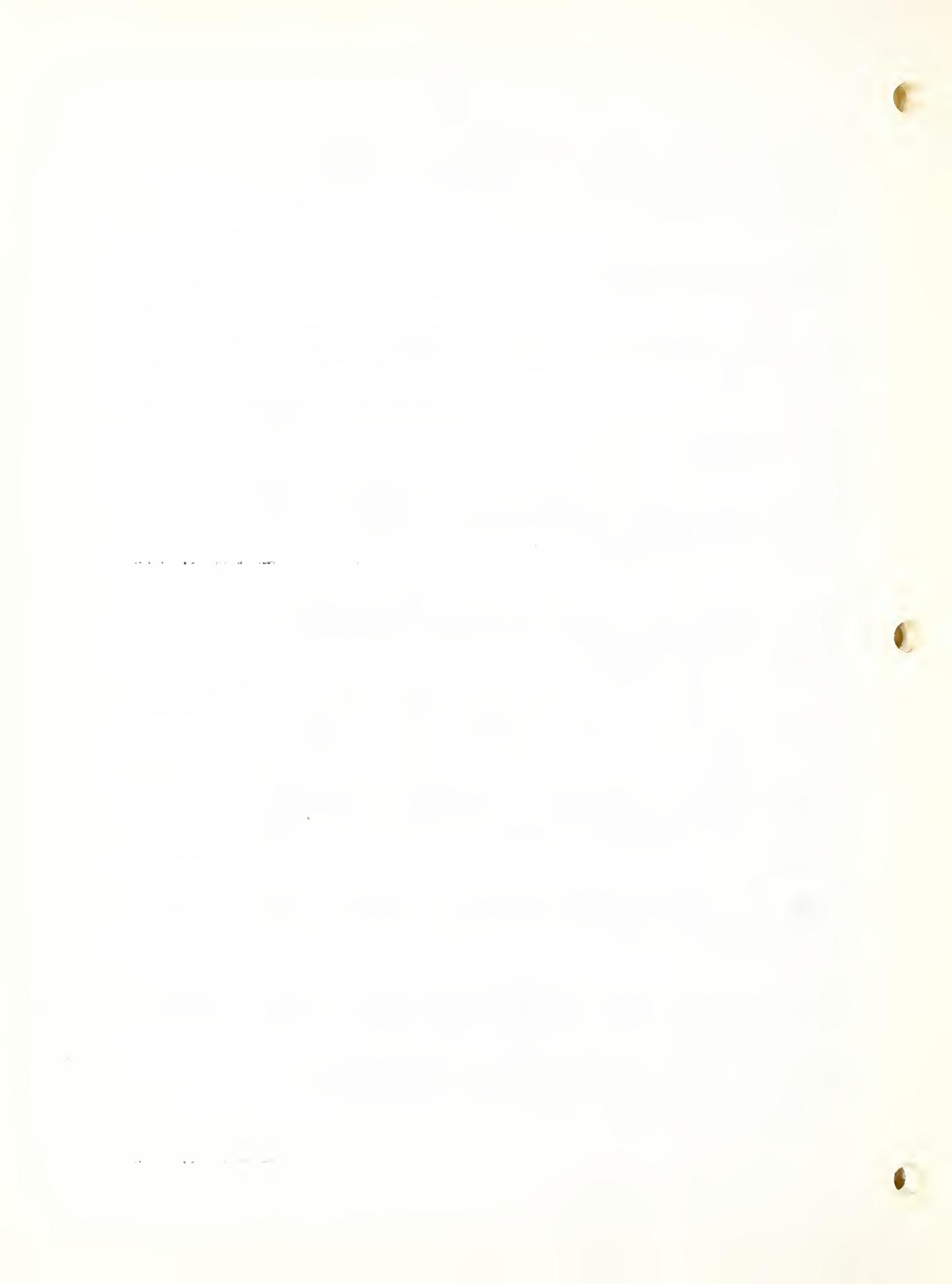
Kasson, C.W. 1961. A study of relationships between fiber size and muscle mass. M.S. Thesis. Univ. of Nebr. Libr. Lincoln.

Kirsch, W. 1961. Feeding as an environmental factor in the production testing of domestic animals. Scientific problems of recording systems and breeding plans of domestic animals. II. Internat'l. Summer School, Sept. 12-27, Max-Planck. Institut. for Anim. Breed. and Nutr. Spec. Vol. pp. 37-66.

Kottman, R. M. 1961. Contributions of the Regional Swine Breeding Laboratory in the future. USDA - ARS - AHRD Reg. Swine Breed. Lab. Ann. Rept. 24:110-118.

Kulwich, R., Feinstein, L., Columbic, C., Hiner, R.L., Seymour, W. R., and Kauffman, W. R. 1961. Relationship of gamma-ray measurements to the lean content of hams. J. Anim. Sci. 20:497-502.

Lasley, J. F. 1961. Some breeding problems in swine. USDA - ARS - AHRD Reg. Swine Breed. Lab. Ann. Rept. 24:103-106.



1961

Lasley, J. F., Day, B.N., and Tribble, L. F. 1961. Improvement of swine through breeding. Mo. Agr. Exp. Sta. Bul. 775.

Lush, J. L. 1961. Large farm animals. II. Need for and utilization of additional sources of germ plasm. Germ Plasm Resources. AAAS Symp., Dec. 28-31, 1959. AAAS Pub. 66. pp.127-135.

Lush, J. L. 1961. The meaning and estimation of heritability. Scientific problems of recording systems and breeding plans of domestic animals. II. Internat'l. Summer School, Sept. 12-27, Max-Planck Institut. for Anim. Breed. and Nutr. Spec. Vol. pp. 147-170.

Lush, J. L. 1961. Majoramiento animal (Animal improvement). Argentina Comn. Nac de Admin.del Fondo de Apoyo al Desarrollo Econ. Oper Carnes P. Tec. 6.

Lush, J. L. 1961. Recent trends in the breeding of swine and ruminants in the United States. Internat'l. Anim. Nutr. Conf. Proc. 2:136-143.

Lush, J. L. 1961. Swine production in the future. I. U.S. Agr. Res. Serv. Reg. Swine Breed. Lab. Ann. Rept. 24:72-77.

Marcum, J. B. 1961. Pork loin indices as related to lean cuts. M.S. Thesis. Cornell Univ. Ithaca.

Marcum, J. B., and Stouffer, J. R. 1961. Relationship of loin indices to pork carcass meatiness. J. Anim. Sci. 20:919.

McConnell, J. L., Fecheimer, W. S., and Gilmore, L. O. 1961. Somatic chromosomes of the pig. (Abs.) J. Anim. Sci. 20:909.

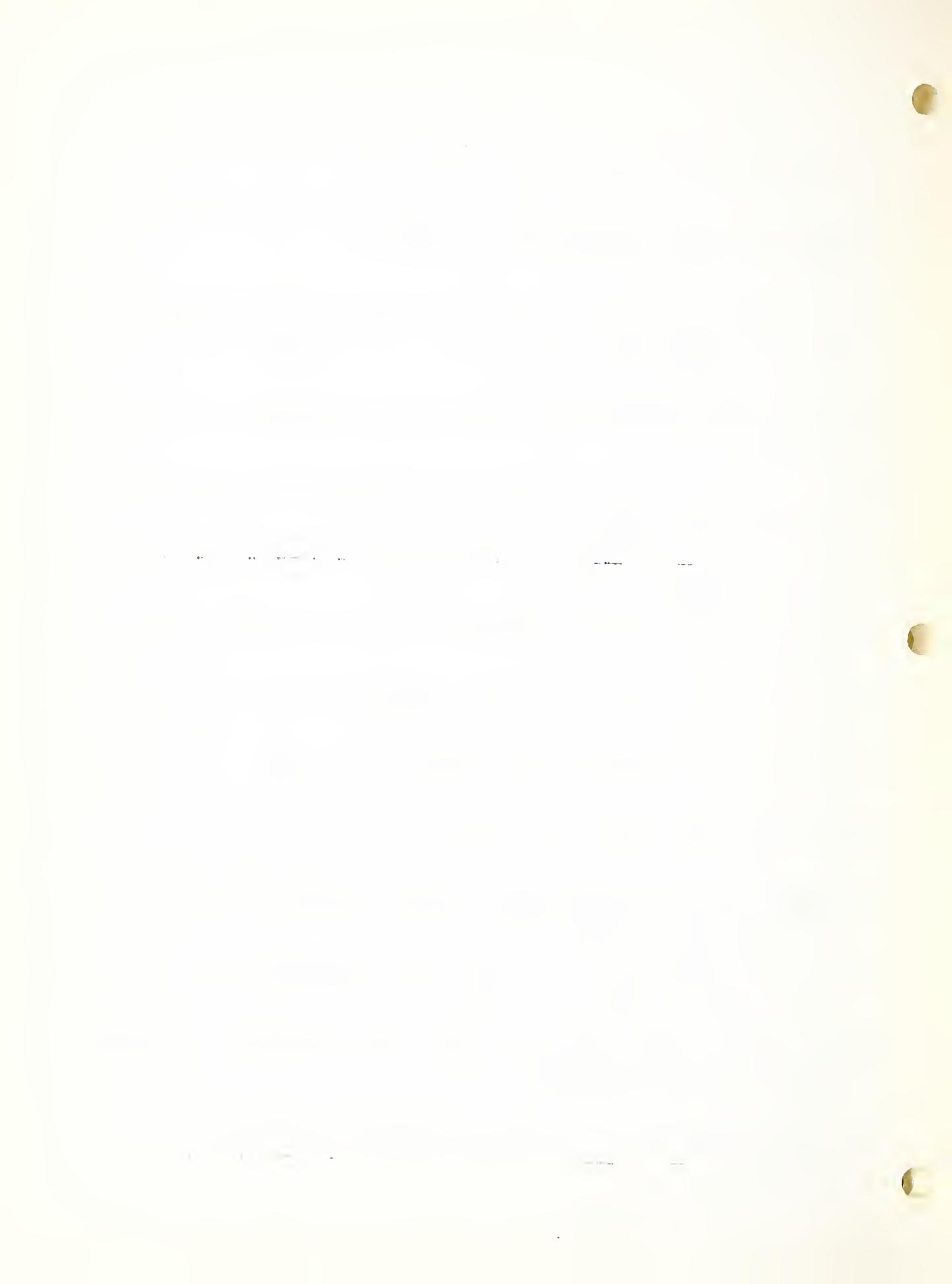
Nielsen, P. B. 1961. The M blood group system of the pig. Acta vet. scand. 2:246-253.

Odegard, A. K. 1961. Relationship between conformation score of adult breeding pigs and carcass quality of their progeny. Agr. Coll. Norway. Instit. Anim. Genet. and Breed. Rept. 149.

Omtvedt, I. T. and Whatley, J.A. 1961. Breeding-management interactions in swine. (Abs.) J. Anim. Sci. 20:909.

Omtvedt, Irvin T. 1961. Some effects of genotype-environment interactions on feedlot performance and carcass traits in swine. Ph.D. Thesis. Okla. State Univ. Libr. Stillwater.

Pratt, D. R. and Magee, W. T. 1961. A comparison of mass selection and inbred lines and line crosses in the laboratory rat. (Abs.) J. Anim. Sci. 19:1225.



1961

Pringle, D. H. and Kulwich, R. 1961. K^{40} gamma give estimate of lean meat content. Nucleonics. 19:74. No. 2.

Rahnefeld, G. W., Boylan, W. J., and Comstock, R. E. 1961. Mass selection and combining ability in mice. (Abs.) J. Anim. Sci. 20:910.

Rahnefeld, Gunther W. 1961. Responses to selection as reflected in population performance and combining ability in mice. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Rendel, J. 1961. Recent studies on the relationships between blood groups and production characters in farm animals. Z. Tierzucht. Zuchtbiol. 75:97-109.

Robertson, A. 1961. Selection for several characters. Scientific problems of recording systems and breeding plans of domestic animals. II. Internat. Summer School, Sept. 12-27, Max-Planck Institut. for Anim. Breed. and Nutr. Spec. Vol. pp. 213-224.

Romack, Frank E. 1961. Leucocytes in swine. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Rupnow, E. H. and Ensminger, M. E. 1961. Effect of added fat on average daily gain, feed efficiency, percent lean cuts, loin eye area and back fat thickness of swine. (Abs.) J. Anim. Sci. 20:683.

Schnell, F. W. 1961. Heterosis and inbreeding effect. Scientific problems of recording systems and breeding plans of domestic animals. II. Internat. Summer School, Sept. 12-27, Max-Planck Institut. for Anim. Breed. and Nutr. Spec. Vol. pp. 251-272.

Stevermer, E. J., Kovacs, M. F., Jr., Hoekstra, W. G., and Self, H.L. 1961. Effect of feed intake on semen characteristics and reproductive performance of mature boars. J. Anim. Sci. 20:858-865.

Stonaker, H. H. 1961. Origin of animal germ plasm presently used in North America. I. Origin of germ plasm. Germ Plasm Resources, AAAS Symp., Dec. 28-31, 1959. AAAS Pub. 66, pp. 21-41.

Stouffer, J. R., Wallentine, M. V., Wellington, G. H., and Diekmann, A. 1961. Development and application of ultrasonic methods for measuring fat thickness and rib eye area in cattle and hogs. J. Anim. Sci. 20:759-767.

Stratman, F. W. 1961. Various factors affecting artificial insemination in swine. Diss. Abs. 22:900-901.

1961

Stratman, F. W. and Self, H. L. 1961. Comparison of natural mating with artificial insemination and influence of semen volume and sperm number on conception, embryo survival and litter size in sows. J. Anim. Sci. 20:708-711.

Sumption, L. J. 1961. Herd building for the next stage of improvement. Nebr. Agr. Exp. Sta. Anim. Husb. Dept. Swine Prog. Rept. 372:11-13.

Sumption, L. J. 1961. Multiple sire mating in swine; evidence of natural selection for mating efficiency. J. Agr. Sci. (London). 56:31-37.

Sumption, L. J. 1961. To give consumer leaner pork, research team studies carcasses. Nebr. Agr. Exp. Sta. Q. 8(2):10-11.

Sumption, L. J. 1961. What progress can be expected from within breed selection. U.S. Agr. Res. Serv. Reg. Swine Breed. Lab. Ann. Rept. 24:93-102.

Sumption, L. J. and Adams, J. C. 1961. Multiple sire mating in swine. III. Factors influencing multiple paternity. J. Hered. 52(5):214-218.

Sumption, L. J., Rempel, W. E., and Winters, L. M. 1961. The evolution of a new breed of swine. The Minnesota No. 3. J. Hered. 52(6):265-274.

Vogt, Dale W. 1961. Genetic correlations between some economically important traits in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Wahlstrom, R. C., Kortan, L. J., Seerley, R. W., and McCarty, J. W. 1961. Improving swine production. So. Dak. Farm & Home Res. 12(2):14-16.

Whatley, J. A. 1961. Oklahoma State University Beltsville No. 1 herd. Inbred News. 11(11):8-9.

Whatley, J. A., Jr. 1961. Performance records on relatives as aids in selecting boars. Feeding and Breeding Tests. 35th Ann. Livestock Feeders' Day Rept. Apr. 15, 1961. Okla. Agr. Exp. Sta. MP-64:51-55.

Wiggan, L. S. 1961. Some influences of genotype and environment on mating behavior of swine. M.S. Thesis. Univ. of Nebr. Libr. Lincoln.

Willham, R. L. 1961. Iowa State swine irradiation project. Iowa Farm Sci. 16(2):9-11.

Willham, R. L. and Cox, D. F. 1961. Genetic differences in preweaning weights of swine. (Abs.) J. Anim. Sci. 20:913.

1961

Willham, R. L. and Cox, D. F. 1961. Sperm production in swine after exposure to x-irradiation. *Radiation Res.* 14:223-229.

Wilson, S. P. and Whatley, J. A., Jr. 1961. Effects of sires and lines of breeding on sow productivity. (Abs.) *So. Sect. A.S.A.P.* Feb. 6-8, 1961. Jackson, Miss. *J. Anim. Sci.* 20:389.

Wilson, S. P., Whatley, J.A., Jr., and Harrington, R. B. 1961. Effect of number of pigs farrowed per litter on number weaned, birth weight and weaning weight. (Abs.) *J. Anim. Sci.* 20:388-389.

Wilson, Stanley Porter. 1961. The influence of line of breeding and sire on sow productivity. Ph.D. Thesis. Okla. State Univ. Libr. Stillwater.

Zobriskys, S. E., Moody, W. G., Day, B. N., and Naumann, H. D. 1961. High frequency sound estimates of meatiness in swine. (Abs.) *J. Anim. Sci.* 20:923.

Zobriskys, S. E., Moody, W. G., Tribble, L. F., and Naumann, H. D. 1961. Meatiness of swine as influenced by breed, season and sex. (Abs.) *J. Anim. Sci.* 20:923.

Zoellner, K. O. 1961. A genetic study of selection for thinner backfat in swine. Ph.D. Thesis. Univ. of Mo. Libr. Columbia.



1962

Andresen, E. 1962. Blood groups in pigs. Ann. N.Y. Acad. Sci. 97(1):205-225. May 3, 1962.

Andresen, E. and Baker, L.N. 1962. Recent pig blood group research at Iowa State University. 8th Internat'l. Blood Group Conf. Europe.

Anon. 1962. Breeding better swine through performance testing. USDA ARS Spec. Rept. 22-77.

Anon. 1962. Loin-eye area and ham percent. The Hormel Farmer. 26(8):2-3.

Baker, L. N. and Andresen, E. 1962. The B blood group of swine. (Abs.) Genetics. 47:940.

Boaz, T. G. and Elsley, F.W.H. 1962. The growth and carcass quality of bacon pigs reared to different weights at 56 days old. Anim. Prod. 4(1):13-24.

Bowman, G. H., Whatley, J.A., Jr., and Walters, L. E. 1962. Physical indices of leanness in swine. J. Anim. Sci. 21:955-959.

Bowman, G. H., Whatley, J. A., Jr., and Walters, L. E. 1962. Separation and measuring errors in swine carcasses. J. Anim. Sci. 21:950-954.

Bowman, Gordon H. 1962. Measures of leanness in swine. Ph. D. Thesis. Okla. State Univ. Libr. Stillwater.

Bruner, W. 1962. The Ohio pork improvement program. Ohio Agr. Ext. Ser. Bul. 419.

Buck, S. F., Harrington, G., and Johnson, R. F. 1962. The prediction of lean percent age of pigs of bacon weight from carcass measurements. Anim. Prod. 4(1):25-36.

Chantalakhana, Charan. 1962. Estimates of genetic parameters of carcass traits in swine. M.S. Thesis. Iowa State Univ. Libr. Ames.

Chapman, V. M. and England, D. C. 1962. Variations of birth weights within litters of Berkshire swine. (Abs.) J. Anim. Sci. 21:970.

Cox, D. F. 1962. Description and measurement of rates of early mortality in the pig. Iowa Agr. Exp. Sta. Res. Bul. 500.

Cox, D. F. and Willham, R. L. 1962. Genetic effects of irradiation on early mortality of swine. Genetics. 47:785-788.

Cox, D. F. and Willham, R. L. 1962. Systematic fostering experiments in swine. J. Anim. Sci. 21:366-368.

1962

Day, B.N. 1962. The reproduction of swine. Chapt. 15. Reproduction in Farm Animals. Hafez, E.S.E., ed. Lea & Febiger, Philadelphia. pp. 255-265.

DeBaca, R. C. 1962. Iowa swine testing station and the pork producer. Iowa State Univ. Coop. Ext. Ser. Pamph. 291.

Dettmers, A. E. 1962. Selection for small size in swine. Ph.D. Thesis. Univ. of Minn. Libr. St. Paul.

Dickerson, G. E. 1962. Implications of genetic environmental interactions in animal breeding. Anim. Prod. 4(1):47-64.

Dillard, E. U., Robison, O. W., and Legates, J. E. 1962. Selection for low backfat ratio in swine. (Abs.) J. Anim. Sci. 21:971.

Doornenbal, H., Asdell, S. A., and Wellington, G. H. 1962. Chromium 51 determined red cell volume as an index of lean body mass in pigs. J. Anim. Sci. 21:461-463.

Enfield, F. D. and Rempel, W. E. 1962. Covariance of sire effects in pure-bred and crossbred populations of swine. (Abs.) J. Anim. Sci. 21:971.

England, D. C. 1962. Birth weights, milk intake, and gains of pigs. (Abs.) J. Anim. Sci. 21:971-972.

England, D. C. and Chapman, V. M. 1962. Relationship between birth weight and growth rate in artificially reared pigs. (Abs.) West. Sect. Amer. Soc. Anim. Prod. July 9-11, 1962. Laramie, Wyo. J. Anim. Sci. 21:671.

England, D. C. and Chapman, V. M. 1962. Relationship of ovulation rate and embryo survival to litter size in swine. (Abs.) West. Sect. Amer. Soc. Anim. Prod. July 9-11, 1962. Laramie, Wyo. J. Anim. Sci. 21:671.

Foster, J. R., Garwood, V. A., Jones, H. W., and Pickett, R. A. 1962. Comparison of protein supplements for swine with different cross-breeding programs. Ind. Agr. Exp. Sta. Res. Prog. Rept. 38.

Fredeen, H. T. 1962. Swine breeding. Canad. Dept. Agr. Pub. 1127.

Fredeen, H. T. and Newman, J. A. 1962. Rib and vertebral numbers in swine. I. Variation observed in a large population. II. Genetic aspects. Canad. J. Anim. Sci. 42:232-239, 240-251.

Gibson, Earl Webb. 1962. Studies on the induction of superovulation in swine. M.S. Thesis. Univ. of Mo. Libr. Columbia.

1962

Gimenez-Martin, G., Lopez-Saez, J. F., and Monge, E. G. 1962. Somatic chromosomes of the pig. *J. Hered.* 53(6):281-290.

Gnaedinger, R.H., Pearson, A. M., and Reineke, E. P. 1962. Estimation of density of live pigs by air displacement and helium dilution procedures. *J. Anim. Sci.* 12:981.

Hafez, E.S.E., Sumption, L. J., and Jakway, J. S. 1962. The behavior of swine. Chapt. 12. The Behavior of Domestic Animals. Ed. Hafez. Bailliere, Tindall, & Cox, Ltd. London.

Heidenreich, C.J., Garwood, V. A., and Carter, M. W. 1962. Seasonal influence on serum cholesterol levels in swine. *Amer. J. Vet. Res.* 23(93):457-459.

Herrick, J. B. and Self, H. L. 1962. Evaluation of fertility in the bull and boar. Iowa State Univ. Press. Ames.

Jonsson, P. and King, J.W.B. 1962. Sources of variation in Danish Landrace pigs at progeny-testing stations. *Acta. agr. Scand.* 12(1-2):68-80.

Joubert, D. M. 1962. The maternal effects on size at birth and weaning in Landrace - Native pig crosses. *Anim. Prod.* 4(1):117-121.

Kaczmarek, A. 1962. Investigations on red cell antigens of the Zlotniki pig and the attempt of establishing the principles of inheritance. *Roczniki Nauk Rolniczych.* T. 79-B-3:375-391.

Karas, G. G., Willham, R. L., and Cox, D. F. 1962. Avoidance learning in swine. *Psych. Repts.* 11:51-54.

King, J. X., Hetzer, H. O., and Zeller, J. H. 1962. Accuracy of back-fat probes, scores for market grade, and various body measurements on live hogs for predicting carcass value. *USDA Prod. Res. Rept.* 58.

Lasley, J. F. 1962. Factors affecting conception rate in swine. Factors Affecting the Performance of Livestock. Iowa Feed Conf. Sept. 14-15, 1962. AS-30:55-56.

Lasley, J. F. 1962. Puberty, breeding season, and estrus cycle. Chapt. 5. Reproduction in Farm Animals. Hafez, E.S.E., ed. Lea & Febiger, Philadelphia. pp. 255-265.

Lush, J. L. and Alba, J. D. 1962. Animal improvement and adaptation. In. United Nations Conf. on the Application of Sci. and Tech. for the Benefit of the Less Developed Areas. Geneva, 1963. Science, technology, and development. U.S. papers, v. 3, p. 215-227.

1962

Lush, J. L. and Alba, J. D. 1962. Animal improvement and adaptation. United Nations Conf. on the Application of Sci. and Tech. for the Benefit of the Less Developed Areas. (Working papers, Agr.), v. 9, No. 441, 10 p. Nov. 2, 1962.

Magee, W. T. 1962. Relationship between daily feed consumption and feed efficiency. J. Anim. Sci. 21:880-882.

McCarty, J. W. 1962. Pointers in breeding for production. Fifth Ann. Swine Day Rept. S. Dak. Agr. Exp. Sta.

McCarty, J. W. 1962. Swine breeding. Lesson plan prepared for use by county agents in swine production short courses with their producers.

Nelson, L. A. 1962. Relationships between body length and other carcass measurements of pigs. M.S. Thesis. Univ. of Nebr. Libr. Lincoln.

Nelson, L. A. and Sumption, L. J. 1962. Relationships between length and other carcass measurements. (Abs.) J. Anim. Sci. 21:984.

Nielsen, P. B. 1962. A new allele in the H blood group system of pigs. (In Danish, English Summary), pp. 201-204. Ann. Rept. the Roy. Veter. and Agr. Coll. Sterility Research Institut. A/S Carl Fr. Mortensen, Copenhagen.

Noland, P. R. 1962. Factors influencing productivity in crossbred pigs. Proc. 1962 Swine Study Day, July 17, 1962. Univ. of Ark.

Omtvedt, I. T., Whatley, J. A., Jr., Whiteman, J. V., and Morrison, R. D. 1962. Genotype-environment interactions in feedlot performance and carcass traits in swine. J. Anim. Sci. 21:41-48.

Osinska, Z. 1962. Estimation of protein, chemical fat, and energy content in pigs. Anim. Prod. 4(3):391-398.

Osinska, Z. 1962. Influence of the shape of the loin eye on the reliability of estimating its area by computation. Roczniki Nauk Rol Niczych. 81-B-1:43-47.

Pani, Narayan S. 1962. Importance of the breed of dam in the production of crossbred hogs. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Park, Young Il. 1962. Heritabilities and genetic correlation between growth rate and feed efficiency in swine. M.S. Thesis. Iowa State Univ. Libr. Ames.



1962

Rahnefeld, G. W., Boylan, W. J., and Comstock, R. E. 1962. Genetic correlation between growth rate and litter size in mice. *Canad. J. Genet. Cytol.* 4:289-295.

Rempel, W. E. 1962. Selection for crossbred performance in pigs. *Minn. Farm & Home Sci.* 19(3):8, 22. Spring.

Robison, O. W. 1962. Growth and backfat deposition curves in swine. (Abs.) *J. Anim. Sci.* 21:975.

Romack, F. E., Lasley, J. F., and Day, B. N. 1962. A study of the circulating leucocyte in swine. *Mo. Agr. Exp. Sta. Res. Bul.* 804.

Romack, F. E., Turner, C. W., and Day, B. N. 1962. Method of estimating thyroxine secretion rate of swine. (Abs.) *J. Anim. Sci.* 21:1029.

Saison, R. and Ingram, D. G. 1962. A report on blood groups in pigs. *Ann. N.Y. Acad. Sci.* 97(1):226-232.

Self, H. L. 1962. Boar management. *Iowa State Univ. Coop. Ext. Ser.* AS-28.

Self, H. L. 1962. Factors affecting results in swine artificial insemination research and field tests. *Proc. IV Int. Cong. Anim. Prod.* The Hague. 1961. Vol. IV (Sect. A. 1.):860-863.

Sherritt, G. W. 1962. Selection for genetic improvement of sow productivity. *Penn State Univ. Libr. University Park.*

Sherritt, G. W. 1962. Some interrelations of productivity of the gilt with age of the gilt at farrowing. (Abs.) *North Atl. Sect. Amer. Soc. Anim. Prod.* Aug. 22-23, 1961. University Park, Pa. *J. Anim. Sci.* 21:140.

Sink, J. D. and Miller, R. C. 1962. Fat deposition in swine. (Abs.) *J. Anim. Sci.* 21:985.

Smith, C. 1962. Estimation of genetic change in farm livestock using field records. *Anim. Prod.* 4(2):239-251.

Smith, C., King, J.W.B., and Gilbert, N. 1962. Genetic parameters of British Large White bacon pigs. *Anim. Prod.* 4(1):128-143.

Smith, N. E. 1962. Hog evaluation - procedure for packing plants. *Purdue Univ. Agr. Exp. Sta. Res. Bul.* 748.

Stevermer, E. J., First, N. L., and Hoekstra, W. G. 1962. Effect of osmotic pressure on preservation of boar spermatozoa. (Abs.) *J. Anim. Sci.* 21:1030.

1962

Stout, T. T. and Feltner, R.L. 1962. Price relationship in the market for slaughter hogs in Indiana. Purdue Univ. Agr. Exp. Sta. Res. Bul. 746.

Stratman, F. W. and Self, H. L. 1962. Fertility studies with naturally mated or artificially inseminated sows. J. Anim. Sci. 21:647-650.

Sumption, L. J. 1962. Herd building, the next stage of improvement. Inbred News. 12(1):3-7. Jan./Feb.

Sumption, L. J. 1962. A proposal for revising article X of the Inbred Livestock Registry Association by-laws. Inbred News. 12(4):2, 4-6. May.

Sumption, L. J. 1962. A proposed procedure for the continuous registration of crossbred males and females. Inbred News. 12(4):8-10. May.

Sumption, L. J. 1962. A proposed revision of the R.O.P. program. Inbred News. 12(3):4-7. Apr.

Sumption, L. J. 1962. Selection of breeding stock. Proc. Nebr. Second Ann. SPF Swine Conf. (Mimeo). pp. 23-28.

Sumption, L. J. 1962. What are records worth? Inbred News. 12(2):8-11. Mar.

Sumption, L. J. 1962. What are records worth? Nebr. Agr. Exp. Sta. Anim. Husb. Dept. Swine Prog. Rept. 373:18-21.

Ward, H. K., Rempel, W. E., and Enfield, F. D. 1962. Genetic correlations between weaning weight and daily gain in pigs. (Abs.) J. Anim. Sci. 21:976-977.

Ward, Harold K. 1962. Genetic relationships of weaning weight with post weaning growth in swine. M.S. Thesis. Univ. of Minn. Libr. St. Paul.

Whatley, J. A., Jr. 1962. Crossbreeding in commercial hog production. Eleventh Ann. Swine Short Course. Tex. Agr. Exp. Sta. MP-566:10-13.

Whatley, J. A., Jr. 1962. Selection for crossbred performance. 3rd Ann. Swine Short Course, Okla. City.

Whatley, J. A., Jr. 1962. Using performance records in swine selection. Eleventh Ann. Swine Short Course. Tex. Agr. Exp. Sta. MP-566:1-5.

Whatley, J. A., Jr. 1962. The value of crossbreeding in swine production. 3rd Ann. Swine Short Course, Okla. City.



1962

Whatley, J. A., Jr., Omtvedt, I. T., Hillier, J. C., and Byram, A. L. 1962. Studies of confinement and pasture management systems for swine. Feeding and Breeding Tests. 36th Ann. Livestock Feeders' Day. Apr. 21, 1962. MP-67:4-11.

Willham, R.L. and Cox, D. F. 1962. Effect of paternal irradiation on 154-day weight in swine. Genetics. 47:1639-1646.

Wilson, S. P., Whatley, J. A., Jr., Whiteman, J. V., and Morrison, R. D. 1962. Influence of sire and line of breeding on sow productivity. J. Anim. Sci. 21:119-122.

Zoellner, K. O., Lasley, J. F., Day, B. N., and Tribble, L. F. 1962. Progress through selection for thinner backfat. Studies with beef cattle, sheep, and swine. 24th Ann. Livestock Day, Univ. of Mo. Spec. Rept. 14. Apr. 13. pp. 1-5.

1963

Allen, E. and Bray, R. W. 1963. An investigation of sex effects upon physical and chemical lipide determinations in pork carcasses. (Abs.) J. Anim. Sci. 22:825.

Allen, E., Forrest, J. C., Bray, R. W., Briskey, E. J., First, N., and Chapman, A. B. 1963. Porcine muscle properties. II. Heritability and genetic correlations. (Abs.) Midwest. Sect. Amer. Soc. Anim. Sci., Nov. 29-30, 1963. Chicago, Ill. J. Anim. Sci. 22:1112.

Andresen, E. 1963. A study of blood groups in the pig. Munksgaard, Copenhagen.

Andresen, E. and Baker, L. N. 1963. Hemolytic disease in pigs caused by Anti-B. J. Anim. Sci. 22:720-725.

Anon. 1963. Seventh generation leanness. Ag. Res. pp. 10-11. May.

Barnhart, C. E., Kemp, J. D., Chaney, C.H., Nichols, C. W., and Cathey, T. W. 1963. Hampshire swine herd performance record project. Ky. Agr. Exp. Sta. Ky. Anim. Sci. Res. Repts. 1963. Prog. Rept. 131:42-43.

Biswas, D. K., Hurt, P. V., Chapman, A. B., First, N. L., and Self, H. L. 1963. Feed efficiency and carcass desirability in swine. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci., Nov. 29-30, 1963. Chicago, Ill. J. Anim. Sci. 22:1109.

Chapman, V. M. and England, D. C. 1963. Age-constant and weight-constant growth rates of pigs. (Abs.) J. Anim. Sci. 22:817.

Comstock, R. E., Singh, M., and Enfield, F. D. 1963. Selection for growth in mice: Crossbred performance. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci., Nov. 29-30, 1963. Chicago, Ill. J. Anim. Sci. 22:1109.

Cox, D. F. 1963. Breed and sex effects on the relationship between weight and fatness measured at a constant age in swine. J. Anim. Sci. 22:1091-1092.

Cox, D. F., Kempthorne, O. 1963. Randomization tests for comparing survival curves. Biometrics. 19(2):307-317.

Day, B. N., Romack, F. E., Lasley, J. F. 1963. Influence of progesterone-estrogen implants on early embryonic mortality in swine. J. Anim. Sci. 22:637-639.

Dukelow, W. R., Grant, R. S., Meade, R. J., and Goihl, J. H. 1963. Influence of protein level, and of amino acid supplementation on performance of growing swine and on carcass characteristics. (Abs.) Midwest. Sect. Amer. Soc. Anim. Sci., Nov. 29-30, 1963, Chicago, Ill. J. Anim. Sci. 22:1119.

1963

Durham, R. M. 1963. Genetic improvement in swine. Chap. 16. Introduction to Livestock Production. Ed. H. H. Cole. W. H. Freeman & Co., San Francisco and London.

Elson, C. E., Fuller, W. A., Kline, E. A., and Hazel, L. N. 1963. Effect of age on the growth of porcine muscle. *J. Anim. Sci.* 22:946-952.

England, D. C. 1963. Swine carcass traits in relation to data at birth. (Abs.) *J. Anim. Sci.* 22:817.

First, N. L., Stratman, F. W., and Casida, L. E. 1963. Effect of sperm age on embryo survival in swine. *J. Anim. Sci.* 22:135-138.

First, N. L., Stratman, F. W., Rigor, E. M., and Casida, L. E. 1963. Factors affecting ovulation and follicular cyst formation in sows and gilts fed 6-methyl-17 acetoxypregnesterone. *J. Anim. Sci.* 22:66-71.

Forrest, J. C., Allen, E., Briskey, E. J., Chapman, A. B., First, N., and Bray, R. W. 1963. Porcine muscle properties. I. Correlations between components and influence of breed. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci., Nov. 29-30, 1963. Chicago, Ill. *J. Anim. Sci.* 22:1114.

Forrest, J. C., Grundlach, R. F., and Briskey, E. J. 1963. A preliminary survey of the variations in certain pork ham muscle characteristics. Proc. 15th Res. Conf. Amer. Meat Instit. Foundat.

Fredeen, H. T. 1963. Genetic aspects of disease resistance. *Canad. Vet. J.* 4(9):219-233.

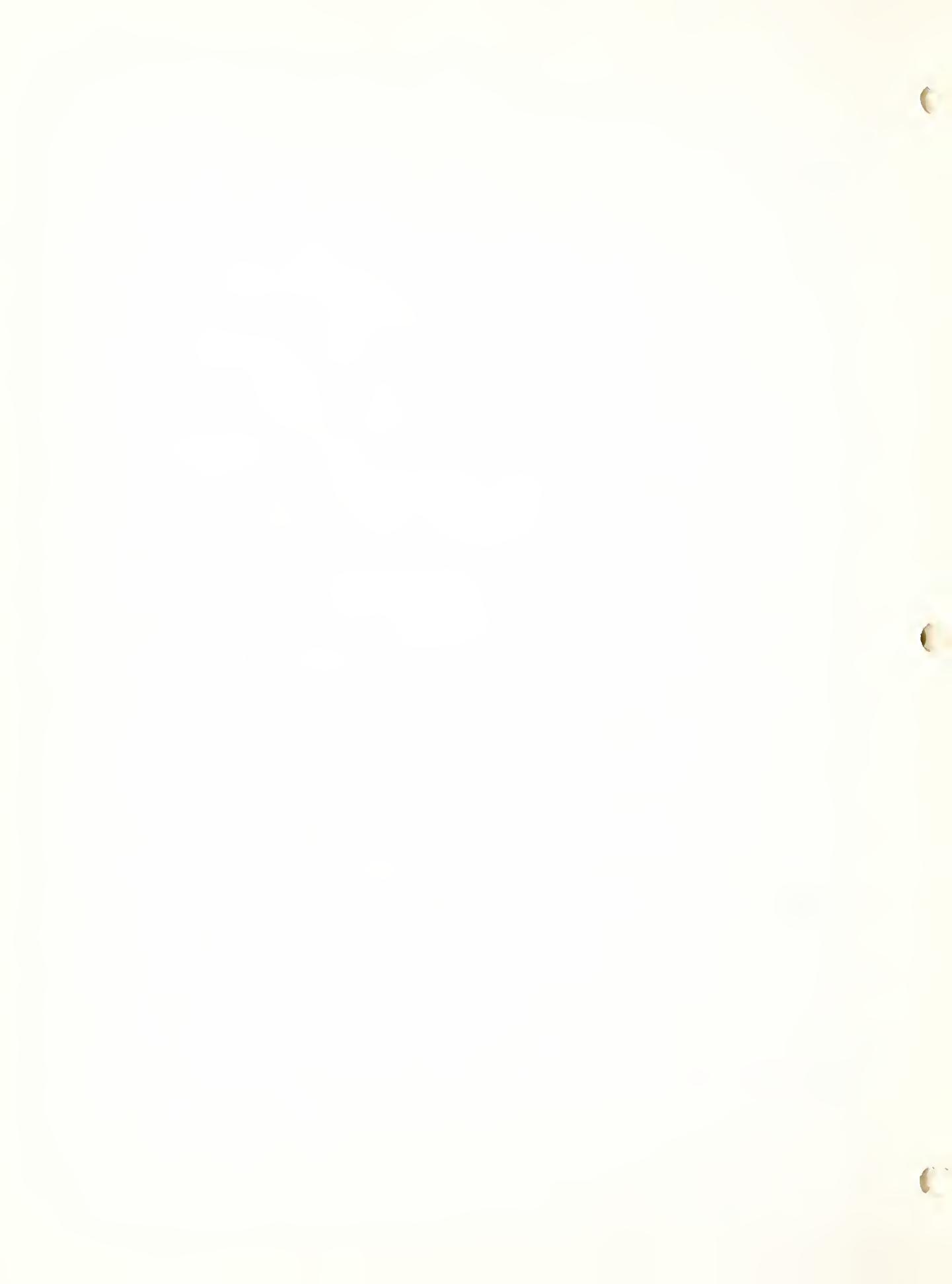
Fredeen, H. T. and Jarmoluk, L. 1963. Skeletal anomalies in swine. *Canad. J. Anim. Sci.* 43:143-149.

Fredeen, H. T. and Plank, R. N. 1963. Litter size and pre-and post-weaning performance in swine. *Canad. J. Anim. Sci.* 43:135-142.

Gardner, M. L., First, N. L., and Casida, L. E. 1963. Effect of exogenous estrogens on corpus luteum maintenance in gilts. *J. Anim. Sci.* 22:132-134.

Gibson, E. W., Jaffe, S. C., Lasley, J. F., and Day, B. N. 1963. Reproductive performance in swine following superovulation. (Abs.) *J. Anim. Sci.* 22:858.

Godley, W. C. and Godbey, E. G. 1963. Interrelationships of birth and 56-day weights and measurements of pigs. (Abs.) So. Sect. Amer. Soc. Anim. Prod. Feb. 4-6, 1963. Memphis, Tenn. *J. Anim. Sci.* 22:245.



1963

Gray, Richard Carl. 1963. Efficiency of selection for thinner backfat at different weights in swine and the relationship of backfat thickness to performance of sows. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Harrington, G., Pearson, A. M., and Magee, W. T. 1963. Subjective evaluations of cutting yields and rib-eye area in live hogs and carcasses. J. Anim. Sci. 22:169-172.

Henry, W. E., Bratzler, L. J., and Luecke, R. W. 1963. Physical and chemical relationships of pork carcasses. J. Anim. Sci. 22:613-616.

Hetzer, H. O., Harvey, W. R., and Peters, W. H. 1963. Selection for high and low fatness in Duroc and Yorkshire swine. (Abs.) 11th Int. Cong. Genet. Netherlands. Sept. 1963.

Hollandbeck, R. and Foster, J. R. 1963. Indiana swine evaluation project. Purdue Univ. Ext. Ser. Cir. 482.

Jonsson, P. 1963. Danish pig progeny testing results. (English). Zeitschrift fur Tierzuchtung und Zuchlungsbiologie. 78(3):205-252.

Judge, M. D. 1963. Comparisons of Longissimus dorsi area of genetically similar barrows and gilts. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci. Nov. 29-30, 1963. Chicago, Ill. J. Anim. Sci. 22:1114.

Karas, G. G., Willham, R. L., and Cox, D. F. 1963. Heritability of avoidance learning in swine. Proc. Midwestern Psychological Assn., May 2-4, 1963. Chicago.

Kerns, D. S. 1963. Genetic parameters within an inbred strain of Chester White swine. M.S. Thesis. Purdue Univ. Libr. Lafayette.

King, J.W.B. 1963. A genotype-environment interaction experiment with bacon pigs. Anim. Prod. 5(3):283-288.

Kirkpatrick, R. L., First, N. L., and Casida, L. E. 1963. Effect of estradiol 17-B on the follicular development and pituitary potency in gilts fed 6-methyl-17 acetoxyprogesterone. J. Anim. Sci. 22:767-770.

Kirkpatrick, R. L., Lauderdale, J. W., First, N. L., Hauser, E.R., and Casida, L. E. 1963. Effect of weaning and FSH treatment on the reproductive organs of the postpartum sow. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci. Nov. 29-30, 1963, Chicago, Ill. J. Anim. Sci. 22:1138.

Kirton, A. H. and Pearson, A. M. 1963. Comparison of method of measuring potassium in pork and lamb and prediction of their composition from sodium and potassium. J. Anim. Sci. 22:125-131.

Kumaresan, Periana. 1963. The inheritance of nipple number in swine. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Lasley, J. F. 1963. Genetics of Livestock Improvement. Prentice-Hall, Inc. Englewood Cliffs.

Lasley, J.F., Day, B.N., and Mayer, D. T. 1963. Intra-uterine migration and embryonic death in swine. J Anim. Sci. 22:422-424.

Lauderdale, J. W., Kirkpatrick, R. L., First, N. L., Hauser, E. R., and Casida, L. E. 1963. Some changes in the reproductive organs of the periparturient sow. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci., Nov. 29-30, 1963, Chicago, Ill. J. Anim. Sci. 22:1138-1139.

Lynch, G. P. and Wellington, G. H. 1963. Predicting the whole body composition of living hogs from the specific gravity determinations. Conf. Body Composition. N.Y. Acad. Sci. Jan. 28-Feb. 2, 1963.

MacLeod, J., Merkel, R. A., and Magee, W. T. 1963. Some linear and area measurements related to muscling in hogs. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci. Nov. 29-30, 1963, Chicago, Ill. J. Anim. Sci. 22:1114-1115.

McCarty, J. W. 1963. Progress report on the establishment of a SPF herd at the Eureka Station. Sixth Ann. Swine Field Day Rept., S. Dak. Agr. Exp. Sta. AS Mimeo 63-10.

McConnell, J., Fechheimer, N. S., and Gilmore, L. O. 1963. Somatic chromosomes of the domestic pig. J. Anim. Sci. 22:374-379.

Magee, W. T. 1963. The relationship between the effect of inbreeding and sex on 154-day weight in swine. (Abs.) J. Anim. Sci. 22:820.

Martin, T. G., Garwood, V. A., Kessler, W. V., Christian, J. E., and Andrews, F. N. 1963. The influence of ration on body composition of growing farm animals. Proc. Symp. on Body Comp. N.Y. Acad. Sci. (In Press).

Martin, T. G., Kessler, W. V., Stant, E. G., Jr., Christian, J. E., and Andrews, F. N. 1963. Body composition of calves and pigs measured by large volume liquid scintillation counting and conventional chemical analyses. Proc. Symp. on Body Comp. N.Y. Acad. Sci. (In Press).

Monson, A. J. 1963. Relative efficiency of production by sows and gilts. (Abs.) J. Anim. Sci. 824.

Morrissette, M. C., McDonald, L. E., Whatley, J. A., Jr., and Morrison, R. D. 1963. Effects of progestins on embryonic mortality of swine. Amer. J. Vet. Res. 24(99):317-323.

1963

Neill, Jimmy D. 1963. The effects of induced ovulation and hysterectomy on the maintenance of corpora lutea in swine. M.S. Thesis. Univ. of Mo. Libr. Columbia.

Noland, P. R., Brown, C.J., and Gifford, W. 1963. The effect of inbreeding and other factors on productivity traits in the UARK Poland China line. (Abs.) So. Sect. Amer. Soc. Anim. Prod. Feb. 4-6, 1963. Memphis, Tenn. J. Anim. Sci. 22:246.

Omtvedt, I. T., Arthaud, R. L., and Jacobs, R. E. 1963. Improving swine through breeding. Minn. Agr. Ext. Bul. 306.

Oxenreider, S. L. 1963. Location and cleavage stage of swine ova 24-108 hours after the onset of estrus. (Abs.) J. Anim. Sci. 22:864.

Pani, S. N., Day, B. N., Tribble, L. F., and Lasley, J. F. 1963. Maternal influence in swine as reflected by differences in reciprocal crosses. Mo. Agr. Exp. Sta. Bul. 830.

Park, Y. I., Lush, J. L., and Hazel, L. N. 1963. Age-constant feed efficiency of pigs. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci., Nov. 29-30, 1963, Chicago, Ill. J. Anim. Sci. 22:1109-1110.

Peters, W. H., Hetzer, H. O., and Kincaid, C. M. 1963. Age at puberty and its influence on sow productivity. N. Atl. Sect. Amer. Soc. Anim. Sci., July 15-17, 1963. Morgantown, W. Va.

Rahnefeld, G. W., Boylan, W. J., Comstock, R. E., and Singh, Madho. 1963. Mass selection for post-weaning growth in mice. Genetics. 48(11):1567-1583.

Rempel, W. E. and Dettmers, A. E. 1963. Progress in the development of a miniature pig. (Abs.) Midwest Sect. Amer. Soc. Anim. Sci. Nov. 29-30, 1963, Chicago, Ill. J. Anim. Sci. 22:1110.

Rigor, E. M., Meyer, R. K., First, N. L., and Casida, L. E. 1963. Endocrine differences associated with follicular development and ovulation rate in swine due to breed and energy intake. J. Anim. Sci. 22:43-50.

Rigor, E. M., Self, H.L., and Casida, L. E. 1963. Effect of exogenous estradiol-17-B on the formation and maintenance of the corpora lutea and on early embryo survival in pregnant swine. J. Anim. Sci. 22:162-165.

Salmela, A. B., Rempel, W. E., and Gates, C.E. 1963. Reaction of three kinds of single-cross pigs to three levels of feed intake. II. Carcass characteristics. J. Anim. Sci. 22:886-889.



1963

Self, H. L. 1963. Some tips on better boar management. Pol. China World. March. 50(3):6-7, 13-14, 16.

Short, R. E., Zimmerman, Dwane R., and Sumption, L. J. 1963. Heterotic influence on reproductive performance in swine. (Abs.) J. Anim. Sci. 22:868.

Smith, C. 1963. Genetic change of backfat thickness in the Danish Landrace breed of pigs from 1952 to 1960. Anim. Prod. 5(3):259-268.

Sumption, L. J. 1963. "Meat Type" hog of '50's becoming obsolete as push continues for more muscle. Univ. Nebr. Anim. Sci. Dept. Swine Prog. Rept. 374:10-11.

Sumption, L. J. 1963. Methods of maintaining gene pools. Proc. 13th Ann. Meet. Canad. Soc. Anim. Prod. pp. 96-105.

Urban, Willard E., Jr. 1963. Genetic and environmental aspects of litter size in swine. Ph.D. Thesis. Iowa State Univ. Libr. Ames. (Diss. Abs. 24(1):9-10).

Vogt, D. W., Comstock, R. E., and Rempel, W. E. 1963. Genetic correlations between some economically important traits in swine. J. Anim. Sci. 22:214-217.

Waltz, F. A. 1963. Genetic parameters within two breeds of purebred swine. M.S. Thesis. Purdue Univ. Libr. Lafayette.

Whatley, J. A., Jr. 1963. Performance and progeny tests for evaluating boars. Feeding and Breeding Tests. 37th Ann. Livestock Feeders' Day Rept. Apr. 20, 1963. MP-70:36-41.

Willham, R. L. 1963. The covariance between relatives for characters composed of components contributed by related individuals. Biometrics. 19(1):18-27.

Willham, R. L., Cox, D. F., and Karas, G. G. 1963. Genetic variation in a measure of avoidance learning in swine. J. Comp. Psychol. 56(2):294-297.

Willham, R. L. and Whatley, J. A., Jr. 1963. Genetic variation in nipple number in swine. Z. Tierz. Zucht. Biol. 78(4):350-363.

Williams, L. D., Pearson, A. M., and Webb, N. B. 1963. Incidence of sex odor in boars, sows, barrows, and gilts. J. Anim. Sci. 22:166-168.

Zobrisky, S. E. 1963. Status of methodology in pork carcass evaluation. Proc. 16th Ann. Recip. Meats Conf., July 11-13, Stillwater. pp. 266-285.

Zoellner, K. O., Lasley, J. F., Tribble, L. F., and Day, B. N. 1963. Selection for thinner backfat in swine. Mo. Agr. Exp. Sta. Bul. 831.



